

PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP)
SEWER REHABILITATION

PROJECT #65-14-SP44

Huntsville, Alabama

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ATTACHMENT "A"

8/14/2014

Periodic Bid for Emergency Cured-in-place Pipe Sewer Rehabilitation Project No. 65-14-SP44

ITEM #	DESCRIPTION	BID QTY	BID UNIT	UNIT PRICE	BID AMOUNT
	All prices include the removal and disposal, including hauling of soil and materials and possible 24 hour project notification				
1	A. CONTRACT MOBILIZATION, (3% OF THE TOTAL COST OF THE WORK ORDER ADJUSTED FOR FINAL QUANTITIES)	1			
2	CURED-IN-PLACE PIPE (CIPP) (8") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
3	CURED-IN-PLACE PIPE (CIPP) (10") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
4	CURED-IN-PLACE PIPE (CIPP) (12") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
5	CURED-IN-PLACE PIPE (CIPP) (15"-16") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
6	CURED-IN-PLACE PIPE (CIPP) (18") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
7	CURED-IN-PLACE PIPE (CIPP) (20-21") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00

8	CURED-IN-PLACE PIPE (CIPP) (24") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
9	CURED-IN-PLACE PIPE (CIPP) (30") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
10	CURED-IN-PLACE PIPE (CIPP) (36") (MATERIAL AND INSTALLATION)	2000	LF		\$0.00
11	POINT REPAIR (8"-18") (MATERIAL AND INSTALLATION)	25	EA		\$0.00
12	POINT REPAIR (20"-36") (MATERIAL AND INSTALLATION)	25	EA		\$0.00
13	CIPP LATERAL REHABILITATION	50	EA		\$0.00
14	REINSTATE SERVICE CONNECTION (MATERIAL AND INSTALLATION)	50	EA		\$0.00
TOTAL BASE BID PRICE (for evaluation purposes only): Basis of payment will be determined by multiplying the measured in place quantities determined in the field by the contract bid unit prices.					\$0.00

ALL ITEMS SHALL BE CONSIDERED IN-PLACE. UNIT PRICE
SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND
INCIDENTAL ITEMS REQUIRED FOR INSTALLATION.

COMPANY _____

SIGNATURE _____

DATE _____

ATTACHMENT "B"
PROPOSAL

TO: THE CITY OF HUNTSVILLE

Public Services Building
320 Fountain Circle
Huntsville, Alabama

PROPOSAL OF _____

(NAME)

(ADDRESS)

TO MAKE CERTAIN IMPROVEMENTS ENTITLED:

**PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION
PROJECT #65-14-SP44**

FOR THE CITY OF HUNTSVILLE, ALABAMA.

GENTLEMEN:

The undersigned bidder has carefully examined the drawings or plans, bid documents, the specifications, the general requirements, the supplement to general requirements, the general terms and conditions, this proposal, the agreement, together with any addenda thereto, and agrees to furnish and deliver all the materials, and to do and perform all the work and labor required to be furnished and delivered, done and performed in and about the improvements as described above and in accordance with certain specifications prepared and approved by the OWNER (City of Huntsville, Alabama). It is MANDATORY that any and all addenda be acknowledged by the undersigned bidder, either on page 3 of the Proposal, Attachment "B" or on the outside of the envelope; otherwise, bid shall be rejected.

The undersigned bidder understands that when unit prices are called for, the quantities shown herein are approximate only and are subject to increase or decrease, and offers to do the work whether the quantities are increased, or decreased, at the unit prices stated in the following schedule. The undersigned bidder also understands that when lump sum bids are called for, he will be required to furnish all equipment, labor, materials and other items or cost to construct a complete facility. The undersigned bidder further understands that any deletions or additions designated on the outside of the bid envelope, must indicate the particular bid item relative to the deletion or addition, even if the deletion or addition references to deduct or add to the Total Base Bid.

Contractors are authorized to download quantities, Attachment "A", or quantity revisions from COH Engineering website and paste to a CD-RW (preferably in a live/flash drive format) of their choice which must be submitted with the original bid packet. In addition, two hard copies must be signed and submitted with original bid packet. Failure to do so may be cause for rejection of bid. The City reserves the right to reject any altered bid resulting from altering the bid CD in any manner. If a price discrepancy is found on the CD-RW, or the correct version of bid quantities is not submitted on the CD-RW which corresponds to the printed hard copies, then printed hard copy prices submitted with original bid documents, with Contractor signature, will prevail.

Certificates of Insurance are required naming the City as the Certificate Holder. Also, the name of the project and project number should be included on the certificate. The Certificates should reflect the insurance coverage required herein. In addition, a copy of the policy may be requested upon award. The Certificates are to be signed by a person authorized by the Insurer to bind coverage on its behalf and must indicate coverage will not be canceled or non-renewed except after thirty (30) days prior written notice to the City at the following address: City of Huntsville, P.O. Box 308, Huntsville, Alabama 35804 ATTN: Penny Kelly.

The undersigned bidder understands that the contract time for this periodic contract is one (1) year from the date of award, with services provided on an as-needed basis up to the Not to Exceed (NTE) Amount. The City of Huntsville reserves the right to extend the contract time for up to two (2) additional one (1) year periods with each renewal year having a new NTE Amount in the same amount as the initial year. Yearly renewals are at the discretion of the City of Huntsville and are subject to the availability of funds. Notification of yearly renewal shall be by written letter from the City Engineer.

PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION
PROJECT #65-14-SP44

In the event that the NTE Amount is reached prior to the end of any yearly term, the City Engineer, at his or her discretion and subject to the availability of funds, may elect to advance the time for renewal in order to best meet the needs of the City, provided that total term of the original contract year and the two potential renewal periods does not exceed a total of three years from the initial date of award of the contract and provided the total expenditures are no more than three times the original Not to Exceed Amount.

Each project to be performed within this contract will require a separate work authorization and purchase order from City of Huntsville. Beginning and end dates for each project will be stated and shall be signed by contractor accepting the terms for each work authorization. Bid prices shall remain firm for the entire length of the contract. Any price increase imposed during the extended contract period shall be in exact increments of any increase imposed by the contractor's supplier. Written verification of any such increase must be submitted to the City of Huntsville for consideration and approval prior to any costs being incurred. If an agreement cannot be reached concerning any such price increases, the City of Huntsville reserves the right to cancel the contract.

The City of Huntsville will direct and approve the work element and the quantities required for each project location and will compute the overall cost for each element of work and their respective quantities.

THE UNDERSIGNED BIDDER ALSO AGREES AS FOLLOWS:

All bonds must be approved by the Mayor and the Clerk-Treasurer of the City of Huntsville. Within fifteen (15) days after the date of acceptance of this proposal by City Council action, the contractor shall execute the contract and furnish to the OWNER a payment (labor and material) bond and a performance bond each in the amount of FIVE HUNDRED THOUSAND AND NO/100 DOLLARS (\$500,000.00). This bid is to remain in effect until final acceptance of the final work order associated with the periodic contract, as allowed by State Law and approved by the OWNER. No contract extension will be allowed for delays in the issuance of the notice to proceed that are a result of the contractor failing to submit the required items within the 15 days.

It is further understood and agreed that the Contractor shall commence work to be performed under this contract within fifteen (15) days from the date of this contract, unless otherwise instructed in writing by the OWNER. All work shall be carried on continuously to completion.

Accompanying this proposal is a certified check or bid bond in the amount of not less than five percent (5%) of the total amount shown on the schedule of prices not exceeding \$10,000.00 payable to the City of Huntsville, Alabama, which is to be forfeited, as liquidated damages, if, in the event that his proposal is accepted, the undersigned shall fail to execute the contract and furnish a satisfactory contract bond under the conditions and within the time specified in this proposal; otherwise, said certified check or bid bond is to be returned to the undersigned.

**PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION
PROJECT #65-14-SP44**

DATED: _____, 20 ____.

(IF AN INDIVIDUAL, PARTNERSHIP, OR NON-INCORPORATED ORGANIZATION)
SIGNATURE OF BIDDER _____

BY _____

ADDRESS OF BIDDER _____

NAMES AND ADDRESSES OF MEMBERS OF THE FIRM:

OUR CONTRACTOR'S STATE LICENSE NO. IS _____

(IF A CORPORATION)
SIGNATURE OF BIDDER _____

BY _____

BUSINESS ADDRESS _____

INCORPORATED UNDER THE LAWS OF THE STATE OF _____

NAMES PRESIDENT _____

OF SECRETARY _____

OFFICERS TREASURER _____

MANDATORY ACKNOWLEDGEMENT OF ADDENDA: Addenda will only be emailed to those bidders who attend and have signed in at the pre-bid meeting. **It is the responsibility of all bidders to refer to the website for any updates.**

ATTACHMENT "C"

PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION
PROJECT #65-14-SP44

SUBCONTRACTOR'S LISTING

All subcontractors must be approved in writing by Owner. If subcontractors are not approved, Contractor will be notified prior to approval of contract by City Council. Any additional subcontractors needed during the contract period shall be approved by written letter from the Owner. Contractor shall **immediately** notify Mary Hollingsworth via email at mary.hollingsworth@huntsvilleal.gov and the Owner's project inspector of any changes to subcontractor list for the duration of the project.

<u>TASKS TO BE PERFORMED</u>	<u>SUBCONTRACTOR NAME</u>	<u>LICENSE NO.</u>	<u>ADDRESS</u>	<u>ITEM #'S OF WORK TO BE PERFORMED</u>
Surveying/Layout				
Permitting				
Clearing & Grubbing				
Erosion Control				
Traffic Control				
Excavation				
Concrete				
Storm Drainage				
Sanitary Sewer				
Shoring/Monitoring				
Retaining Walls				
Bridges				
Railroads				
Traffic (signals, loops)				
Street Lights				
Electrical				
Water				
Asphalt				
Landscaping (Trees, grassing)				
Irrigation				
Striping				
Sewer Testing				
Guardrails				
Handrails				
Painting				
Special (fencing, benches, dewatering etc.)				
Mechanical				
SCADA				

ATTACHMENT "D"

PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION
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Contractor shall provide at least five (5) references including NAME OF PROJECT, Owner Name, address, phone number and contact name that demonstrates contractor's ability on similar projects.

1.

2.

3.

4.

5.

ATTACHMENT "E"

MANDATORY Pre-Bid meeting to be held on Tuesday, September 2, 2014 at 10:00 a.m., in the 1st Floor Conference Room at 320 Fountain Circle, Huntsville, AL 35801.

NOTICE TO CONTRACTORS

WANTED: Sealed bids in duplicate for the construction of: Periodic Bid for Emergency Cured-In-Place Pipe Sewer Rehabilitation, more particularly known as Project No. 65-14-SP44

Description of Project: The purpose of this project is to perform CIPP work on an as-needed, on-call basis. Each periodic project will be designated by the City of Huntsville utilizing unit prices for the commonly performed contractor work items. All periodic work is intended to be performed within the shortest possible time frame with the work beginning and ending on dates selected by the City of Huntsville. Failure to comply with the times specified in the Notice to Proceed (NTP) may, in the sole determination of the City of Huntsville, result in the contractor being prohibited from bidding on additional work for the City until such time as contractor is back on schedule. Contractor must meet pre-qualification requirements and be able to respond onsite within twenty-four (24) hours of an emergency call from the Water Pollution Control Department.

PRE-QUALIFICATION: All contractors who plan to submit a bid must submit a pre-qualification form, which can be obtained at www.huntsvilleal.gov/engineering/bidlist. Three (3) copies of the completed pre-qualification forms must be submitted in a sealed envelope to City of Huntsville, Engineering Department, ATTN: Penny Kelly, Post Office Box 308, Huntsville, AL 35804 no later than 12:00 p.m., August 27, 2014. Responses will be evaluated and contractors will be notified by 5:00 p.m. on August 29, 2014. Only bidders who are considered pre-qualified shall attend the mandatory pre-bid meeting. Bids will only be considered from contractors deemed qualified through this process. The City of Huntsville will not be responsible for a bidder's failure to complete the pre-qualification forms nor to become pre-qualified.

The attention of all bidders is called to Code of Alabama §§ 34-8-1 and 34-8-2 (1975) and 34-8-1, 34-8-2, 34-8-4, 34-8-6, 34-8-7, 34-8-8 and 34-8-9 (amended 1996) setting forth the definition of general contractor and the licensing procedures and requirements for state licensing. A copy of the above Codes may be obtained from the OWNER (City of Huntsville). No one is entitled to bid and no contract may be awarded to anyone who does not possess a valid general contractor's license and the required classification for the municipal type work to be performed. The general contractor's license and classification must appear on the outside of the bid envelope along with the general contractor's name and address, project name and number and date and time of bid opening. Section 39-3-5 Code of Alabama has been amended as follows:

"In awarding the Contract, preference will be given to Alabama resident contractors and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded the Contract only on the same basis as the nonresident bidder's state awards contracts to Alabama contractors bidding under similar circumstances."

This project Periodic Bid for Emergency Cured-in-Place Pipe Sewer Rehabilitation, more particularly known as Project No. 65-14-SP44 requires the contractor to possess a State of Alabama Classification of (MU) Municipal & Utility or (MU-S) Specialty Construction Sewer or Pipelines/Underground Piping.

After proposals are opened and read, they will be compared on the basis of the summation of the products or approximate quantities shown in Attachment "A", multiplied by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit bid price shall govern. A proposal will not be considered unless signed by the bidder or his authorized agent and accompanied by cashier's check or properly signed bid bond, as required by law.

In determining the successful bidder, the Owner will consider in addition to the bid prices, such responsibility factors as characteristics and responsibility, skill, experience, record of integrity in business, and of performance offered and past record of performance on Owner contracts on other similar projects. Any other factors not specifically mentioned or provided for herein, in addition to that of the bid price which would affect the final cost of the Owner, will be taken into consideration in making award of contract. The right is reserved to reject any bid where investigation of the business and technical organization of the bidder available for the contemplated work, including financial resources, equipment, and experience on similar projects does not satisfy the Owner that such bidder is qualified to perform the work. The City Council of the City of Huntsville reserves the right to reject any and all bids and to waive informalities.

Separate sealed bids for the construction of this project will be received at the City of Huntsville Public Services Building, 320 Fountain Circle, in the 1st Floor in the Conference Room, on the 11th day of September, 2014, until 10:00 am. Each bid shall be accompanied by an original signed, dated and sealed Bid Bond in the amount of not less than five percent (5%) of the total shown on the schedule of prices, but not exceeding \$10,000.00. Quantities are known as Attachment "A". No bidder may withdraw his bid within ninety (90) days after the actual date of opening.

These Addenda, Special Provisions, Plans, the Supplement to General Requirements for Construction of Public Improvements City of Huntsville Specifications, Standard Specifications for Construction of Public Improvements Contract Projects and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all.

They are intended to be complimentary and to describe and provide for a complete work. Contract Document Order of Precedence shall be as follows:

1. Addenda
2. General Requirements (Instructions to Bidders and Bid Proposal including Attachments)
3. Supplement to General Requirements
4. Drawings / City of Huntsville Standard Specifications for Construction of Public Improvements Contract Projects 1991
5. Supplemental Specifications (Earthwork, Chain Link Fences, and Gates)
6. Special Conditions
7. Current ALDOT Specifications

Standard Specifications for Construction of Public Improvements Contract Projects and Engineering Standards are available at no charge by downloading from the City Engineering website: www.huntsvilleal.gov/engineering. Pre-Qualification forms, plans and proposals can be downloaded from our website at no cost: www.huntsvilleal.gov/engineering/bidlist.html. Contractors will be responsible for costs of duplicating their own plans and can choose photocopying facility of their choice. Additionally, Contractors are responsible for checking website for any revisions/updates. Contractor is required to submit pricing, provided by the COH (Attachment "A") and made available for download from the Engineering website, on a CD-RW (preferably in a live/flash drive format) in the Excel format.

The CD-RW (preferably in a live/flash drive format) must be in working condition and included with original bid packet and reflect the correct revision, along with two signed hard copies. Failure to do so may be cause for rejection of bid. If a price discrepancy is found on the CD-RW, or the correct version of bid quantities is not submitted on the CD-RW which corresponds to the printed hard copy, then printed hard copy prices submitted with original bid documents, with Contractor signature, will prevail.

E-VERIFY – NOTICE

The Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975) § 31-13-1 through 31-13-30 (also known as and hereinafter referred to as "the Alabama Immigration Act") as amended by Act No. 2012-491 on May 16, 2012 is applicable to all competitively bid contracts with the City of Huntsville. As a condition for the award of a contract and as a term and condition of the contract with the City of Huntsville, in accordance with § 31-13-9 (a) of the Alabama Immigration Act, as amended, any business entity or employer that employs one or more employees shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. During the performance of the contract, such business entity or employer shall participate in the E-Verify program and shall verify every employee that is required to be verified according to the applicable federal rules and regulations. The business entity or employer shall assure that these requirements are included in each subcontract in accordance with §31-13-9(c). Failure to comply with these requirements may result in breach of contract, termination of the contract or subcontract, and possibly suspension or revocation of business licenses and permits in accordance with §31-13-9 (e) (1) & (2). Code of Alabama (1975) § 31-13-9 (k) requires that the following clause be included in all City of Huntsville contracts that have been competitively bid and is hereby made a part of this contract:

"By signing this contract the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom."

Contractor's E-Verify Memorandum of Understanding shall be a part of the contract bid documents and shall be submitted with the bid package.

ALABAMA IMMIGRATION ACT (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975))

Compliance with the requirements of the (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975) § 31-13-1 through 31-13-30, as amended by Alabama Act 2012-241, commonly referred to as the Alabama Immigration Law, is required for City of Huntsville, Alabama contracts that are competitively bid as a condition of the contract performance. The Contractor shall submit in the bid package, with the requested information included on the form, the "City of Huntsville, Alabama Report of Ownership Form" listed in the bid proposal as Attachment "H". The bidder selected for award of the contract may be required to complete additional forms relating to citizenship or alien status of the bidder and its employees, including e-verify information, prior to award of a contract.

Advertise Date: 8/17/14

ATTACHMENT "F" SAMPLE FORM

REQUEST FOR PAYMENT CITY OF HUNTSVILLE ENGINEERING DIVISION

PROJECT NAME AND NUMBER: _____

ESTIMATE NUMBER: ONE (1) PERIOD FROM: 03/11/05 TO _____
 CONTRACT DURATION 0 DAYS
 START DATE: 03/11/05 END DATE: 3/11/05 TOTAL CONTRACT TIME (3) 0 DAYS

REFER TO COH SUPPLEMENT
TO GENERAL REQUIREMENTS:
CHANGE ORDERS - CHANGE
TO CONTRACT TIME

TIME	C.O. # 1	DAYS ADDED	<u>0</u>	CONTRACT DAYS REMAINING	<u>0</u>
TIME	C.O. # 2	DAYS ADDED	<u>0</u>		

TOTAL CONTRACT AMOUNT (1)	AS AWARDED	\$	<u>200,000.00</u>	CURRENT \$	<u>200,000.00</u>
	C.O. # 1	\$	<u>-</u>		
	C.O. # 2	\$	<u>-</u>		

TOTAL AMOUNT EARNED TO DATE LESS STORED MATERIALS (2): \$ -

MATERIAL STORED (INVOICE ATTACHED) \$ -

RETAINAGE (5%) OF 50% OF CONTRACT \$ -

AMOUNT EARNED AFTER RETAINAGE \$ -

LIQUIDATED DAMAGES PER DAY 300

LIQUIDATED DAMAGES ASSESSED TO DATE: -

FOR QUESTIONS RELATED TO PAYMENT
CALCULATIONS, LIQUIDATED DAMAGES, AND
CHANGE ORDER REQUIREMENTS, PLEASE REFERENCE
YOUR CONTRACT
SUPPLEMENT TO GENERAL REQUIREMENTS SECTION.
4. CHANGE ORDERS.
12. PAYMENT.
13. LIQUIDATED DAMAGES.

Damages, if applicable, will automatically be calculated by
subtracting the contract end date from the invoice period end date
and multiplying the days by the daily damages amount. Damages
will automatically be deducted from amounts otherwise due.

TOTAL AMOUNT PREVIOUSLY APPROVED TO DATE: \$ -

AMOUNT DUE THIS ESTIMATE WITHOUT LIQUIDATED DAMAGES \$ -

A: % OF TIME ELAPSED: TIME ELAPSED TO DATE _____ DAYS =
 TOTAL CONTRACT TIME (3) 0 DAYS

B: PROJECT COMPLETION: TOTAL EARNED TO DATE (2) - = 0%
 TOTAL CONTRACT AMOUNT 200,000.00

C: PROGRESS OF WORK: B - A =

CONTRACTORS CERTIFICATE

I, _____, the duly qualified, acting and authorized agent for the contractor
 on the above project, do hereby certify that we have performed all of the work set forth in strict accordance with the plans, specifications, laws and ordinances applicable thereto,
 and do further certify that all materials, labor, and equipment listed herein have been paid for in full as allowed on all prior estimates and if requested to do so, we will show evidence of
 payment for the same in writing before the final payment of this estimate. We further certify that the amount received hereunder is considered
 compensation and final payment in full for all work performed under the contract, including any amendments thereto and, upon payment of said sum, hereby release the Owner,
 its employees, agents, and representatives in accordance with said contract. We further certify that we fully guarantee all work performed hereunder for a period of twelve
 months from the date of payment of the final estimate (in accordance with the terms of our original contract and all amendments thereto), during which time all terms and
 conditions of the original contract document shall remain in full force and effect, including the insurance requirements, Hold Harmless Agreement, and Indemnifying Agreement
 as contained in said contract documents.

CERTIFIED FOR PAYMENT ON THIS THE _____ DAY OF _____
 BY: _____ CONTRACTOR: _____
 TITLE: _____
 SIGNED: _____ WITNESS: _____
 SIGNATURE

We have checked the quantities and extensions to this estimate, and to the best of our knowledge, the estimate is true and correct.

APPROVED FOR PAYMENT

BY: _____
 CONSTRUCTION INSPECTOR

BY: _____
 SHANE DAVIS, CITY ENGINEER
 OR RON ADAMS, DEPUTY CITY ENGINEER
 OR LYNN MAJORS, ADMINISTRATIVE OFFICER

BY: _____
 PROJECT ENGINEER

IF FINAL ESTIMATE, DATE WORK WAS
 COMPLETED: _____

ATTACHMENT "G"

All vendors/contractors are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded, unless vendor/contractor is already registered and doing business with the City. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be obtained at the following website: www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf

CITY OF HUNTSVILLE, ALABAMA REPORT OF OWNERSHIP FORM

A. General Information. Please provide the following information:

- Legal name(s) (include "doing business as", if applicable): _____
- City of Huntsville current taxpayer identification number (if available): _____
(Please note that if this number has been assigned by the City and if you are renewing your business license, the number should be listed on the renewal form.)

B. Type of Ownership. Please complete the un-shaded portions of the following chart by checking the appropriate box below and entering the appropriate Entity I.D. Number, if applicable (for an explanation of what an entity number is, please see paragraph C below):

Type of Ownership (check appropriate box)	Entity I. D. Number & Applicable State
<input type="checkbox"/> Individual or Sole Proprietorship	Not Applicable
<input type="checkbox"/> General Partnership	Not Applicable
<input type="checkbox"/> Limited Partnership (LP)	Number & State:
<input type="checkbox"/> Limited Liability Partnership (LLP)	Number & State:
<input type="checkbox"/> Limited Liability Company (LLC) (Single Member)	Number & State:
<input type="checkbox"/> LLC (Multi-Member)	Number & State:
<input type="checkbox"/> Corporation	Number & State:
<input type="checkbox"/> Other, please explain:	Number & State (if a filing entity under state law):

C. Entity I.D. Numbers. If an Entity I.D. Number is required and if the business entity is registered in this state, the number is available through the website of Alabama's Secretary of State at www.sos.state.al.us/, under "Government Records". If a foreign entity is not registered in this state please provide the Entity I.D. number (or other similar number by whatever named called) assigned by the state of formation along with the name of the state.D. Formation Documents. Please note that, with regard to entities, the entity's formation documents, including articles or certificates of incorporation, organization, or other applicable formation documents, as recorded in the probate records of the applicable county and state of formation, are not required unless: (1) specifically requested by the City, or (2) an Entity I.D. Number is required and one has not been assigned or provided.

Please date and sign this form in the space provided below and either write legibly or type your name under your signature. If you are signing on behalf of an entity please insert your title as well.

Signature: _____

Title (if applicable): _____

Type or legibly write name: _____

Date: _____

SECTION 00400

SUPPLEMENTS TO CONTRACTOR'S QUALIFICATION STATEMENT

Note: Failure to complete this page in full, and to provide valid, existing licenses and insurance, as required, will render this bid non-responsive and result in the rejection of this bid.

PART 1 - BIDDER'S QUALIFICATIONS

A. The required names and addresses of all persons interested in the foregoing Bid, as Principals, are as follows:

B. Bidder's Reference List - Most Recent Bids Awarded

The Contractor shall submit five municipal references which the Owner can verify. All references shall pertain to actual work performed by the Bidder (subcontractor references are not applicable) on sanitary sewer projects. Reference work shall have been performed with the manner of application specified herein. Submit sufficient references on a project by project basis. Reference information shall be submitted using the form below only. Reference or supplemental information submitted separately, or any information provided that is not shown below, will be disregarded.

All references will be treated as the Bidder's confidential business information. Previous work for the Owner may be used as references. Complete each item for all references in the space provided below (type or print legibly):

(1) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(2) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(3) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(4) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(5) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

C. Bidder's Reference List - Optional Additional References

The Contractor may submit additional municipal references which the Owner can verify. All references shall pertain to actual work performed by the Bidder (subcontractor references are not applicable). Reference work shall have been performed with the manner of application specified herein. Submit references on a project-by-project basis. Reference or supplemental information submitted separately, or any information provided that is not shown below, will be disregarded.

All references will be treated as the Bidder's confidential business information.

Previous work for the Owner may be used as references. Complete each item for all references in the space provided below (type or print legibly):

(1) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(2) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(3) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size: _____

(4) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size:

(5) Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size:

D. Bidder's Reference List - Project Experience Record

The Contractor shall submit municipal references which the Owner can verify that demonstrate the following:

1. The Bidder has conducted a minimum of 150,000 linear feet of CIPP sewer rehabilitation, of the same products and using the same methods bid in this project, in the United States, with a minimum of 5,000 linear feet in diameters 15" or large within the last five years.
2. The Bidder has been operating as a company, under the same name, for a minimum of five (5) years while being actively involved in the direct field installation of the same products and the same methods the work described in Item 1 above.
3. The Bidder's qualified superintendent has a minimum of five years supervisory field experience, completed at least three projects containing a total of 5,000 linear feet of 12" or larger pipe and completed a minimum of 250,000 linear feet of the same products and using the same methods bid in this project.
4. The Bidder is to perform the maximum amount of work in house without subcontract. Prospective bidders will be graded on their ability to perform work in-house, and their ability to fulfill the requirements set forth in Items 1-3 above (see also Supplement to General Requirements - Item 1. "General" for details).

All references shall pertain to actual work performed by the Bidder (subcontractor references are not applicable) on sanitary sewer projects. Reference work shall have been performed with the manner of application specified herein. Submit sufficient references on a project by project basis. Reference information shall be submitted using the form below only. Reference or supplemental information submitted separately, or any information provided that is not shown below, will be disregarded. Installations performed out of contractor locations and by crews not normally assigned to work in the State of Alabama will not be considered as having met the qualifying requirements.

All references will be treated as the Bidder's confidential business information. Previous work for the Owner may be used as references. Complete each item for all references in the space provided below (type or print legibly):

(Project Experience Record - This page may be duplicated, if required)

Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Superintendent: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size:

Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Superintendent: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size:

Owner/Agency: _____
Address: _____
Address: _____
City, State, Zip: _____
Contact: _____
Phone: _____

Project Name: _____
Superintendent: _____
Project Description: _____

Installed Length of Pipe per Each Pipe Size:

- END OF SECTION -

SECTION 01015

WORK SEQUENCE

PART 1 - GENERAL

1.01 WORK INCLUDED

A. The Contractor shall submit to the Engineer for review and acceptance a complete schedule of the proposed sequence of construction operations prior to commencement of work. In order to provide a definitive basis for determining job progress, the Contractor shall provide a construction schedule of the Critical Path Method (CPM) type for monitoring the project. However, the Engineer will not accept a construction schedule that fails to utilize the entire time allocated for construction of the project. This schedule requirement in no way prevents the Contractor from completing the project in a shorter time frame than scheduled. The construction schedule shall be submitted and approved by the Owner prior to the submittal of the first partial payment request. A revised construction schedule shall be submitted with every subsequent partial payment request. This revised schedule must be approved prior to payment.

B. The Contractor shall observe the following:

1. The Owner and the Engineer shall be notified 48 hours in advance of work to be performed which will take any part of an existing utility out of service. This work shall be scheduled such that service is disrupted for as short a time as possible.
2. The Contractor shall provide temporary facilities where necessary to accommodate the maintenance of dependable service by the affected utilities.
3. This project involves work within the City of Huntsville's wastewater collection system. Construction work shall be restricted to the area shown on the Drawings. All underground utilities shall be marked in the field before excavation begins.
4. Work shall commence in such a fashion as to provide full capacity of the wastewater collection system at all times. The Contractor's construction schedule presented for approval shall reflect this requirement.
5. Upon commencement of pipe bursting activities, the Contractor shall complete pipe bursting activities, backfill and grade all disturbed areas, and provide final landscaping prior to leaving work site or demobilizing from project. If settling occurs, the Contractor shall immediately provide sufficient backfill and landscaping as requested. Landscaping or irrigations issues not addressed within 48 hours after Owner Representative notification to the contractor shall be completed by COH or COH representative. Cost incurred shall be removed from the project unit items.

- END OF SECTION -

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

The Contractor shall furnish all necessary labor, machinery, tools, apparatus, equipment, materials, equipment, service, other necessary supplies and perform all work including all excavation and backfilling (without additional compensation, except where specifically set out in these specifications) at the unit price base bid price for the work described in Part 4 of this Section.

1.02 COMPUTATION OF QUANTITIES

A. For estimating quantities in which the computation of areas by geometric methods would be comparatively laborious, it is agreed that the planimeter shall be considered an instrument of precision adapted to the measurement of such areas.

B. It is further agreed that the computation of the volume of prismoids shall be by the method of average end area.

C. All excavation on this Project is bid as unclassified and any rock removed in the progress of the project will not increase the cost to the Owner.

D. Dewatering is not a separate pay item.

1.03 PROGRESS AND PAYMENTS SCHEDULES

A. Within fifteen (15) days after the date of formal execution of the AGREEMENT, the Contractor shall prepare and submit to the Engineer, for approval, a construction schedule of the Critical Path Method (CPM) type which depicts the Contractor's plan for completing the contract requirements and show work placement in dollars versus contract time. The Engineer must approve the Contractor's construction schedule before any payments will be made on this contract.

B. Within fifteen (15) days after the date of formal execution of the AGREEMENT, the Contractor shall prepare and submit to the Engineer, for approval, a periodic estimate which depicts the Contractor's cost for completing the contract requirements and show by major unit of the project work, the Contractor's dollar value for the material and the labor (two separate amounts) to be used as a basis for the periodic payments. The Engineer must approve the Contractor's periodic estimate before any payments will be made on this contract.

C. The Engineer's decision as to sufficiency and completeness of the Contractor's construction schedule and periodic estimate will be final.

D. The Contractor must make current, to the satisfaction of the Engineer, the construction schedule and periodic estimate each time he requests a payment on this contract.

E. The Contractor's construction schedule and periodic estimate must be maintained at the construction site available for inspection and shall be revised to incorporate approved change orders as they occur.

F. When the Contractor requests a payment on this contract, it must be

on the approved periodic estimate and be current. Further, the Contractor shall submit the current periodic estimate and construction schedule (both updated and revised) for the Engineer's review and approval before the Owner makes monthly payments. The Contractor shall submit five (5) current copies of each (periodic estimate and construction schedule) when requesting payment.

1.04 CONDITIONS FOR PAYMENT

A. The Owner will make payments for acceptable work in place and materials properly stored on-site. The value of payment shall be as established on the approved construction schedule and periodic estimate; EXCEPT the Owner will retain five percent (5%) of the work in place and a percentage as hereinafter listed for items properly stored or untested.

B. No payment will be made for stored materials unless a proper invoice from the supplier is attached to the pay request. Further, no item whose value is less than \$1,000.00 will be considered as stored materials for pay purposes.

C. Payment for pipeline items shall be limited to seventy-five percent (75%) of the installed quantity until the pipeline items installed have been tested and accepted by the Engineer. Acceptance by the Engineer is contingent upon the review of post-installation television inspection video and any other project documentation required by these Specifications. Payment for pipeline items shall be limited to ninety percent (90%) of the installed quantity until final clean-up and restoration.

H. The Owner may reduce the percent of retainage once the project has achieved satisfactory progress and is at the fifty percent (50%) mark. If the percent retainage is reduced, the dollar amount of retainage for work-in-place will not be reduced but will remain constant following the fifty percent (50%) constructed status. The retainage on the equipment items shall be determined as defined hereinbefore.

I. Additionally, the Owner may reinstate the retainage to a full five percent (5%) of the scheduled value of work-in-place and material items should the Owner, at its discretion, determine that the Contractor is not making satisfactory progress or there is other specific cause for such withholding.

1.05 CLAIMS FOR EXTRA WORK

A. If the Contractor claims that any instructions by Drawings or otherwise involve extra cost, he shall give the Engineer written notice of said claim within seven (7) days after the receipt of such instructions, and in any event before proceeding to execute the work, stating clearly and in detail the basis of his claim or claims. No such claim shall be valid unless so made.

B. Claims for additional compensation for extra work, due to alleged errors in spot elevations, contour lines, or bench marks, will not be recognized unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material, or performing more work than would reasonably be estimated from the Drawings and topographical maps issued.

C. Any discrepancies which may be discovered between actual conditions and those represented by the topographical maps and Drawings shall at once be reported to the Engineer, and work shall not proceed, except at the Contractor's risk, until written instructions have been received by him from the Engineer.

D. If, on the basis of the available evidence, the Engineer determines that an adjustment of the Contract Price or time is justifiable, the procedure

shall then be as provided herein for "Changes in the Work".

E. By execution of this Contract, the Contractor warrants that he has visited the site of the proposed work and fully acquainted himself with the conditions there existing relating to construction and labor, and that he fully understands the facilities, difficulties, and restrictions attending the execution of the work under this Contract. The Contractor further warrants that he has thoroughly examined and is familiar with the Drawings, Specifications and all other documents comprising the Contract. The Contractor further warrants that by execution of this Contract his failure when he was bidding on this Contract to receive or examine any form, instrument or document, or to visit the site and acquaint himself with conditions there existing, in no way relieves him from any obligation under the Contract, and the Contractor agrees that the Owner shall be justified in rejecting any claim based on facts regarding which he should have been on notice as a result thereof.

1.06 DETERMINATION OF THE VALUE OF EXTRA (ADDITIONAL) OR OMITTED WORK

A. The value of extra (additional) or omitted work shall be determined in one or more of the following ways:

1. On the basis of the actual cost of all the items of labor (including on-the-job supervision), materials, and use of equipment, plus a maximum 15 percent for added work or a minimum 15 percent for deleted work which shall cover the Contractor's general supervision, overhead and profit. In case of subcontracts, the 15 percent (maximum for added work and minimum for deleted work) is interpreted to mean the subcontractor's supervision, overhead and profit, and an additional 5 percent (maximum for added work and minimum for deleted work) may then be added to such costs to cover the General Contractor's supervision, overhead and profit. The cost of labor shall include required insurance, taxes and fringe benefits. Equipment costs shall be based on current rental rates in the areas where the work is being performed but, in no case shall such costs be greater than the current rates published by the Associated Equipment Distributors, Chicago, Illinois.
2. By estimate and acceptance in a lump sum.
3. By unit prices named in the Contract or subsequently agreed upon.

B. Provided, however, that the cost or estimated cost of all extra (additional) work shall be determined in advance of authorization by the Engineer and approved by the Owner.

C. All extra (additional) work shall be executed under the conditions of the original Contract. Any claim for extension of time shall be adjusted according to the proportionate increase or decrease in the final total cost of the work unless negotiated on another basis.

D. Except for over-runs in contract unit price items, no extra (additional) work shall be done except upon a written Change Order from the Engineer, and no claim on the part of the Contractor for pay for extra (additional) work shall be recognized unless so ordered in writing by the Engineer.

E. All excavation shall be bid as unclassified and rock removal shall be at no additional cost to the Owner.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - PAYMENT

4.01 MEASUREMENT

The quantities for payment for each line section included in this project and under this contract shall be as shown on the Plans or in the Owner's geographic information system (GIS) database. If discrepancies are found between lengths shown on the Plans and the actual length of pipe installed, the Contractor shall notify the Engineer immediately. Each discrepancy found shall be measured along the centerline of the pipe, verified by the Engineer, and approved by the Owner before payment will be allowed. If the project is modified by the addition or deletion of sewer lines to be pipe burst, the quantities of such lines, either added or deleted, shall be as shown on the Plans or in the Owner's GIS database.

4.02 PAYMENT ITEMS

A. The pay items listed below refer to the project pay items - Attachment A1: Bid Quantities, and are the only pay item under the base bid for this contract.

1. Cured-In-Place Pipe (CIPP) (8"-36") (Bid Items #2-10)

a. Measurement and payment for CIPP, except as otherwise specified, will be based on the length of pipe in linear feet as shown on the Plans or in the Owner's GIS database, as measured from center of manhole to center of manhole.

b. Payment for CIPP will be made at the Contract unit price per linear foot for the size installed and shall be full compensation for CIPP installation and all other materials, labor, and incidental costs as specified in Section 02690. See 4.02.2 for measurement and payment for additional point repairs required.

2. Point Repair (Bid Items #11-12)

a. Measurement and payment for point repairs, except as otherwise specified, will be based on the actual number of point repairs completed.

b. Payment for each point repair will be made at the Contract unit price per each point repair completed and shall be full compensation for all excavation, dewatering, cleaning, installation of pipe and other materials, fittings, backfill and compaction, asphalt and concrete removal and replacement, grading, landscaping, removal and replacement of fencing and mailboxes, and for all equipment and all other work necessary to complete the installation as specified.

3. Cured-In-Place Pipe (CIPP) Lateral Rehabilitation (Bid Item #13)

a. Measurement and payment for CIPP Lateral Rehabilitation, except as otherwise specified, will be based on the actual number of sewer laterals repaired by this method.

b. Payment for each lateral rehabilitation will be made at the Contract unit price per each lateral completed and shall be full compensation for CIPP installation and all other materials, labor, and incidental costs as specified in Section 02695.

4. Reinstate service connection (Bid Item #14)

a. Measurement and payment for reinstating service connections, except as otherwise specified, will be based on the actual number of service connections restored.

b. Payment for each reinstated service connection will be made at the Contract unit price per each service connection restored and shall be full compensation for all materials, labor, equipment and other work necessary to satisfactorily reinstate services.

B. Any and all other items of work listed in the Specifications or shown on the Contract Drawings for this contract shall be considered incidental to and included in the pay item.

- END OF SECTION -

SECTION 02260

SITE RESTORATION

PART 1 - GENERAL

1.01 CLEAN-UP

Upon completion of the installation of the structures, yard piping, equipment and appurtenances, the Contractor shall remove all debris and surplus construction materials resulting from construction operations. The Contractor shall grade the ground along each side of the pipe trench and/or structure in a uniform and neat manner leaving the construction area in a shape as near as possible to the original ground line or to the grades shown on the Drawings.

PART 2 - PRODUCTS

2.01 SEEDING

All graded areas shall be seeded as specified in COH Standard Specifications. Residential yards shall be sodded back original or better condition with the same species of grass which is present.

PART 3 - EXECUTION

A. After installation of Work, the construction site shall be restored to its original condition or better. All paved streets, roads, sidewalks, curbs, etc. removed or disturbed during construction shall be replaced, and all materials and workmanship shall conform to standard practices and specifications of the Owner and/or to the Alabama Department of Transportation (Alabama Highway Department) requirements and specifications, whichever applies. Gravel, cinder or dirt streets, drives and shoulders shall be replaced and sufficiently compacted to provide a surface suitable for carrying the type of traffic normally imposed at that location.

B. All seeded areas shall be watered daily during the germination period, unless rain supplies the required moisture. The Contractor shall replace, at no additional cost to the Owner, trees, shrubs, etc. disturbed during construction.

C. The Contractor shall remove from the site all equipment, unused materials and other items. The construction site shall be left in a neat, orderly condition, clear of all unsightly items, before the Work is finally accepted.

- END OF SECTION -

SECTION 02600

MAINTAINING WASTEWATER FLOW

PART 1 - GENERAL

This Section shall include all pumps, hoses, tank trucks, traffic control, clean up, and any other materials required to effectively by-pass pump and maintain continuous wastewater flow in the existing sewer system.

The Contractor shall furnish all labor, materials, tools and equipment necessary to maintain wastewater flows in the sewer by means of by-pass pumping around the sewer segment or manhole to maintain flow continuously until rehabilitation work is completed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 CONSTRUCTION REQUIREMENTS

The Contractor shall contact the Owner Representative 48 hours in advance of any work related to wastewater flow control in existing systems. Procedures and equipment planned by the Contractor for maintaining wastewater flow during rehabilitation work shall be coordinated with the Owner Representative.

3.02 DEPTH OF FLOW

A. If the depth of flow in the existing sewer segment at a point upstream of the rehabilitation work is above the maximum allowable depth for television inspection, joint testing and/or sealing, flow shall be reduced to an acceptable level for lining or other rehabilitation by operation of pump station, plugging or blocking of the sewer, or by pumping and bypassing of flow as specified.

B. In performing television inspection, joint testing and/or sealing and other sewer rehabilitation work, the Contractor shall control the depth of flow in the sewer within the following guideline:

MAXIMUM PIPE FLOW DEPTH					
TELEVISION INSPECTION		JOINT TESTING AND SEALING		PIPE LINING	
PIPE DIAMETER	FLOW DEPTH, % OF DIA.	PIPE DIAMETER	FLOW DEPTH, % OF DIA.	PIPE DIAMETER	FLOW DEPTH, % OF DIA.
6 - 10 in.	20%	6 - 12 in.	25%	6 - 10 in.	20%
12 - 24 in.	25%	15 - 24 in.	30%	12 - 24 in.	25%
27 in. or more	30%	27 in. or more	35%	27 in. or more	30%

C. When sewer line flows, as measured in the first manhole upstream of the sewer segment being rehabilitated, exceed the maximum depths listed above or inspection of the complete pipe periphery is necessary for effective testing,

sealing or line work, the Contractor shall implement wastewater flow control methods at no additional cost to the Owner

3.03 SEWER PLUGGING OR BLOCKING

A. During any type of sewer rehabilitation work, if necessary to temporarily control wastewater flow, after proper notice is given to the Owner Representative, the Contractor may plug or block the sewer pipe.

B. A sewer line plug shall be inserted into the pipe at a manhole upstream from the section being inspected, lined, replaced, tested and/or sealed. The plug shall be so designed that during all or any portion of the operation, wastewater flows shall be shut off or substantially reduced in order to properly inspect the pipe at the invert. After rehabilitation work is complete, flows shall be restored to normal.

3.04 BYPASS PUMPING

A. Where pumping is required, for wastewater flow control, in the opinion of the Owner Representative, to assure completion of the inspection, replacement, lining or testing and sealing work, the Contractor shall furnish pumping equipment, traffic control, conduits, fittings, barricades, safety equipment, power and other necessary equipment. No pumping operations shall be performed from manhole to manhole in which wastewater is allowed to enter surface drainage facilities, ditches, or natural water courses.

B. Sanitary sewage shall be pumped directly into the nearest downstream available manhole, providing that the existing sewer has capacity to transport the flow, or, if no manhole is available, into tank trucks for hauling sewage. The Contractor shall be responsible for keeping pumps running continuously, 24 hours a day if required, until the by-pass operation is no longer required.

C. The by-pass system shall have adequate capacity to handle existing wastewater flow plus any additional peak flows which may occur during the rehabilitation work process.

3.05 PRECAUTIONS AND LIABILITY

A. During wastewater flow control operations, the Contractor shall take proper precautions to prevent flooding and/or damage to existing sanitary sewer facilities, or to public or private property.

B. The Contractor shall make repairs or replacements or rebuild any damaged section or sections of existing sewers, as directed by the Owner Representative. All such repairs, replacements, and rebuilding shall be paid for by the Contractor.

C. The Contractor shall make provisions as necessary for handling all flows in existing sewers, connections, and manholes by pipes, flumes, or by other approved methods at all times in which operations would interfere with normal functioning of those facilities.

D. The Contractor shall be responsible for the removal of any debris and sedimentation in the existing sewers, laterals and manholes, etc. which is attributable to work under this Contract.

E. All operations shall be performed by the Contractor in strict accordance with OSHA and any applicable local safety requirements. Particular attention of the Contractor is directed to safety regulations for excavations and entering confined spaces.

F. It is the Contractor's responsibility to notify any property owner having a sewer service connection on the sewer being rehabilitated that such work is being performed. The Contractor shall be solely responsible for any damage caused by property service connection backups caused by the Contractor's sewer rehabilitation operations.

G. If sewage should leak or spill during any of the Contractor's operations under this Contract, the Contractor shall immediately contact the Owner Representative and implement emergency containment actions.

- END OF SECTION -

SECTION 02625

POINT REPAIR

PART 1 - GENERAL

1.01 WORK INCLUDED

The work covered by this Section includes furnishing all labor, equipment and materials required to carry out point repairs on sanitary sewer lines as described herein.

1.02 RELATED WORK

- A. Section 01300 - Submittals
- B. Section 02600 - Maintaining Wastewater Flow
- C. Section 02619 - Television Inspection
- D. Section 02620 - Sanitary Sewer Cleaning

PART 2 - PRODUCTS

2.01 PIPE

All pipe used for point repairs shall be approved by the Owner Representative.

2.02 COUPLINGS

Elastomeric couplings for connecting replacement pipe to existing pipe shall be as manufactured by Fernco, or approved equal. Elastomeric couplings shall be fastened by two stainless steel adjustable clamps, type C-305 or approved equal, to form a watertight seal.

PART 3 - EXECUTION

3.01 METHOD OF REPAIR

A. The Contractor shall replace a sufficient number of entire pipe joints to ensure that incompetent pipe is removed and replaced. The bid price for each individual point repair shall include replacement of the total length of pipe required, in the manner discussed above, up to a length, per repair, of 15 feet.

B. If the length of the required replacement segment is not adequate to locate sufficient sound pipe for connection with the new section, the Contractor, at the Owner Representative's instruction, may be directed to replace additional sections of pipe such that an appropriate connection is possible.

C. The Contractor shall repair and replace all service wyes, tees, or taps encountered within the required replacement segment using material specified. Any service lines encountered within the point repair area shall be replaced up to competent pipe with the same size material and the type specified by the Owner.

D. Any service line or competent main line pipe broken by the Contractor shall be replaced at the Contractor's expense at the determination of the Owner Representative.

3.02 PREPARATION

A. Before commencing work, the Contractor shall determine that all requirements pertaining to scheduling of the work, the time approved by the Owner Representative for commencement, and coordination of work with the Owner Representative are being complied with.

B. All protection required to prevent damage to new materials, adjacent materials, equipment, fixtures, and finishes shall be provided.

C. Contractor shall provide proper ventilation for personnel working in the sewer.

D. Contractor shall provide all the material and equipment necessary for an alternate routing of the sewer flow per COH Standard Sanitary Sewer Specifications. Discharge shall be to a downstream sanitary sewer manhole.

E. Contractor shall provide all traffic control devices including flagmen, at and around the work area as per COH 1991 Specifications.

F. The sewer pipe should be cleaned and internally inspected by the Contractor in accordance with COH Standard Sanitary Sewer Specifications. Any conditions that would prevent proper installation of the point repair desired or require additional materials should be noted and brought to the attention of the Owner Representative.

G. Service connections should be noted and brought to the attention of the Owner Representative. Any services which are not to be reconnected after repair shall be identified by the Owner Representative.

H. Point repair locations shall be recorded as distance from the upstream manhole.

3.03 INSTALLATION

A. The Contractor shall remove any fences, base materials, storm sewers, etc. that interfere with the repair made at each specified point, and the Contractor is responsible for the replacement of said fences, base material, storm sewer etc., in the same or better condition than found as determined by the Owner Representative.

B. The Contractor shall replace the entire defective pipe section including at least one complete existing pipe length or section on each side of the defect. The bottom of the trench shall be reshaped so that the grade of the pipe replaced will match that required for the existing sewer line. The point repair shall be backfilled in accordance with the COH Standard Specification and as noted in the Documents. If the material in the bottom of the trench is of such consistency that it is not stable, then the Contractor shall stabilize the bottom of the trench by placing suitable materials at the direction of the Owner Representative. Elastomeric couplings, fastened by two stainless steel clamps, will be used to connect replacement pipe with existing pipe.

C. Service taps shall be repaired by replacing the service line back to competent pipe. A wye connection shall be made to the main line connection with the same size pipe and material as the replacement pipe.

D. Prior to backfilling, point repairs shall be inspected by the Owner Representative. After backfilling point repairs shall be internally televised per COH Standard Sanitary Sewer Specifications for final approval by the Owner Representative.

3.04 WARRANTY

The Contractor shall guarantee the work for a warranty period of two (2) year from the date of acceptance. If, at any time during the warranty period, any leakage, cracking, loss of bond, or other discontinuity is identified, the Contractor shall make repairs acceptable and at no additional cost to the Owner and extend the warranty period for an additional two (2) year from the date of repair acceptance.

- END OF SECTION -

SECTION 02690

CURED-IN-PLACE PIPE (CIPP)

PART 1 - GENERAL

1.01 WORK INCLUDED

A. This specification defines the approved systems and materials for the rehabilitation of existing gravity sewer lines by the cured-in-place pipe lining process.

B. The Contractor shall include all labor The Contractor shall include all labor, materials, equipment and services necessary for dewatering, traffic control, bypass pumping and/or diversion of sewage flows, cleaning and television inspection of sewers to be lined, liner installation, reconnection of service connections, all quality controls, samples for performance of required material tests, final television inspection, and testing of lined pipe system and warranty work necessary to provide for the complete rehabilitation of deteriorated gravity sewer lines by the CIPP system, all as specified herein.

C. The CIPP system is defined as the rehabilitation of pipelines by the installation of a resin-impregnated flexible tube which, when cured, shall be continuous and tight-fitting throughout the entire length of the original pipe. The CIPP shall extend the full length of the original pipe and provide a structurally sound, jointless and water-tight new pipe within a pipe. The Contractor is responsible for proper, accurate and complete installation of the CIPP using the system selected by the Contractor.

D. This specification represents the minimum requirements for the rehabilitation of sanitary sewer pipelines by the installation of Cured-In-Place Pipe (CIPP) within the existing, deteriorated pipe as shown on the plans included as part of these contract documents. The Contractor shall abide by any manufacturer's specifications that exceed these specifications.

E. Contractor shall re-establish any blocked service connections as covered under the separate bid items "REINSTATE SERVICE CONNECTION (MATERIAL AND INSTALLATION) or "CIPP LATERAL REHABILITATION."

1.02 RELATED WORK

- A. Section 01300 - Submittals
- B. Section 02600 - Maintaining Wastewater Flow
- C. Section 02619 - Television Inspection
- D. Section 02620 - Sanitary Sewer Cleaning

1.03 SUBMITTALS

A. The manufacturer's installation procedures shall be submitted for approval by the Owner Representative before the commencement of installation. Where the scope of work is specifically delineated in the contract documents, the Contractor shall submit a detailed installation plan describing all of the following: preparation work, cleaning operations, pre-CCTV inspections, bypass pumping, traffic control, installation procedure, handling procedures, material storage locations, method of curing, service reconnection, quality control, testing to be performed, final CCTV inspection, project schedule, EPSC plan, cleanup plan, residential notification, warranties furnished and all else necessary and applicable for a complete CIPP liner installation.

B. The Contractor shall submit with the bid proof of experience matching the outlines in Section 400, Bidders Qualifications.

C. Shop drawings and product data shall be submitted for approval before any work commences.

D. Engineering design calculations, in accordance with the Appendix of ASTM F-1216, for each length of liner to be installed including the thickness of each proposed CIPP. It will be acceptable for the Contractor to submit a design for the most severe line condition and apply that design to all of the line sections. These calculations shall be performed and certified by a, qualified, Professional Engineer. All calculations shall include data that conforms to the requirements of these specifications or has been pre-approved by the Owner.

E. Submittals shall include information on the cured-in-place pipe intended for installation and all tools and equipment required for a complete installation. Contractor shall identify which tools and equipment will be redundant on the job site in the event of equipment breakdown. All equipment, to be furnished for the project, including proposed back-up equipment, shall be clearly described. The Contractor shall outline the mitigation procedure to be implemented in the event of key equipment failure during the installation process.

F. A detailed description of the Contractor's proposed procedures for removal of any existing blockages in the pipeline that may be encountered during the cleaning process.

G. Compensation for all work required for the various submittals contained within this section shall be included in the various pipelining items contained in the Proposal.

1.04 QUALITY ASSURANCE AND PRODUCT DELIVERY

A. The CIPP shall be continuous and joint-less from manhole to manhole or access point to access point and shall be free of all defects that will affect the long term life and operation of the pipe.

B. The CIPP shall fit sufficiently tight within the existing pipe so as to not leak at the manholes, at the service connections or through the wall of the installed pipe. If leakage occurs at the manholes or the service connections the Contractor shall seal these areas to stop all leakage using a material compatible with the CIPP as directed by the Owner at the price bid therefore in the Proposal. If leakage occurs through the wall of the pipe the liner shall be repaired or removed as recommended by the CIPP manufacturer. Final approval of the liner installation will be based on a leak tight pipe. Any remedial repairs or rework under this item shall be at the Contractor's sole expense with no additional compensation.

C. The CIPP shall be designed for a life of 50 years or greater. The installed CIPP shall have a long term (50 year) corrosion resistance to the typical chemicals found in domestic sewage. The CIPP may be designed as a liner to rehabilitate the existing pipe or as a fully structural stand alone pipe-within-a-pipe. The installed CIPP shall withstand all applicable surcharge loads (soil overburden, live loads, etc.) and external hydrostatic (groundwater) pressure, if present, for each specific installation location.

D. Neither the CIPP system, nor its installation, shall cause adverse effects to any of the Owner's processes or facilities. The use of the product shall not result in the formation or production of any detrimental compounds or by-products at the wastewater treatment plant. The Contractor shall notify the Owner and identify any by-products produced as a result of the installation operations, test and monitor the levels, and comply with any and all local waste discharge requirements. The Contractor shall cleanup, restore existing surface conditions and structures, and repair any of the CIPP system determined to be defective. The Contractor shall conduct installation operations and schedule cleanup in a manner to cause the least possible obstruction and inconvenience to traffic, pedestrians, businesses, and property owners or tenants.

E. All existing and confirmed active service connections and any other service laterals to be reinstated as directed by the Owner shall be re-opened robotically or by hand in the case of man-entry size piping, to their original shape and to 95% of their original capacity. All over-cut service connections will be properly repaired to meet the requirements of these specifications. This work shall be paid under the separate bid item "REINSTATE SERVICE CONNECTION (MATERIAL AND INSTALLATION)."

F. All materials furnished, as part of this contract shall be marked with detailed product information, stored in a manner specified by the manufacturer and tested to the requirement of this contract.

G. Testing and warranty inspections shall be executed by the Owner. Any defects found shall be repaired or replaced by the Contractor.

H. The Contractor shall furnish all samples for product testing at the request of the Owner. The Owner shall take possession of the samples for testing and shall maintain the chain of custody, deliver the samples to an approved laboratory and pay for all material and product testing performed under this contract.

1.05 SAFETY

A. The Contractor shall conform to all work safety requirements of pertinent regulatory agencies, and shall secure the site for the working conditions in compliance with the same. The Contractor shall erect such signs and other devices as are necessary for the safety of the work site.

B. The Contractor shall perform all of the Work in accordance with applicable OSHA standards. Emphasis shall be placed upon the requirements for entering confined spaces and with the equipment being utilized for pipe renewal.

C. The Contractor shall submit a proposed Safety Plan to the Owner, prior to beginning any work, identifying all competent persons. The plan shall include a description of a daily safety program for the job site and all emergency procedures to be implemented in the event of a safety incident. All work shall be conducted in accordance with the Contractor's submitted Safety Plan.

D. Compensation for all work required for the submittal of the Safety Plan shall be included in the various pipelining items contained in the Proposal.

1.06 REFERENCES

The following documents form a part of this specification to the extent stated herein and shall be the latest editions thereof. Where differences exist between codes and standards, the requirements of these specifications shall apply.

ASTM -F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM -F1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pull in and inflate and Curing of a Resin-Impregnated Tube

ASTM -D543 Standard and Practice for Evaluating the Resistance of Plastics to Chemical Reagents

ASTM -D638 Standard Test Method for Tensile Properties of Plastics

ASTM -D790 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

ASTM -D792 Standard Test Methods for Density and Specific Gravity of Plastics by displacement.

ASTM -F2019-03 Standard Practice for Rehabilitation of Existing Pipelines and

Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP)

ASTM -D2122-98(2004) Standard Test Method for Determining Dimensions of

Thermoplastic Pipe and Fittings

ASTM -D2990 Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics

ASTM -D3567-97(2002) Standard Practice for Determining Dimensions of Fiberglass (Glass-Fiber-Reinforced Thermosetting Resin) Pipe and Fittings

ASTM -D3681 Standard Test Method for Chemical Resistance of "Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Pipe in a Deflected Condition

ASTM -D5813 Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe

1.07 PATENT INFRINGEMENT

The Contractor shall hold the Owner and Owner Representative whole and harmless in any legal action resulting from patent infringement.

1.08 PUBLIC NOTIFICATION

A. 72 hours prior to disruption of service, the Contractor shall notify property owners, public, residents, and all others who may be affected using a notification form approved by the Owner. Emergency work notification by the contractor will be at the discretion of the Owner Representative.

B. The Contractor shall use dye testing or another approved method for determining active service connections. Service lines that are not active are not to be reconnected unless directed by the Owner or Owner Representative.

C. The Contractor shall disrupt customer service for no longer than 12 hours. If service will be disrupted for more than 12 hours or overnight, the Contractor must notify affected customers and the Owner of the delay and make necessary arrangements to keep temporary service to the residence.

1.09 PROJECT DOCUMENTATION

A. The Contractor shall make a walk through video prior to the start of construction and another immediately after the completion of the project. These videos shall document the condition of the entire project area. The project name, contract number, and the date and time of filming shall be clearly identified in the videos. The location within the project area shall be clearly identified as filming progresses.

B. Videos shall be submitted to the Owner's inspector at the earliest possible date.

C. Pre-construction video inspections and logs documenting the existing pipe conditions and construction areas shall be submitted not less than 72 hours prior to the commencement of CIPP activities. Emergency projects shall waive 72 hour submittal.

D. The Contractor shall perform Television Video Inspection immediately prior and immediately following CIPP installation. All videos are to be clearly documented the location, date and time of the inspection and shall be provided to the Owner within 24 hours of completion of work of each individual line segment.

1.10 EXISTING DOCUMENTATION AVAILABILITY

The Owner will make available to the Contractor or Prospective Bidders all existing sewer information and television inspections. The Contractor or Bidder shall make arrangements with the Owner to view this information by appointment only, Monday - Friday between the hours of 6:00 AM and 5:00 PM. See the contact information below:

Address: City of Huntsville
Department of Water Pollution Control
1800 Vermont Road
Huntsville, AL 35804

Contact: Mr. Mark Huber

Phone: (256) 883-3777

1.11 QUALIFICATIONS

A. The Contractor is required to have at least one qualifying superintendent on the job during construction activities. The qualifying superintendent and crew that will be undertaking the work must meet the experience requirements noted in Section 00400. Crews and superintendent shall be able to respond onsite within twenty four hours of notification for an emergency project.

B. A minimum of five (career) years flow diversion supervisory field experience is required.

C. See experience qualifications in section 00400 of the Supplemental specifications.

PART 2 - PRODUCTS

2.01 GENERAL

A. The finished replacement pipe/liner shall be fabricated from materials which will be chemically resistant to withstand internal exposure to municipal wastewater and meet the chemical requirements specified in this section.

B. All materials, shipped to the project site, shall be accompanied by test reports certifying that the material conforms to the ASTM standards listed herein. Materials shall be shipped, stored, and handled in a manner consistent with written recommendations of the CIPP system manufacturer to avoid damage. Damage includes, but is not limited to, gouging, abrasion,

flattening, cutting, puncturing, or ultra-violet (UV) degradation. On site storage locations, shall be approved by the Owner. All damaged materials shall be promptly removed from the project site at the Contractor's expense and disposed of in accordance with all current applicable regulations.

2.02 MATERIALS

A. Fabric Tube

i. The fabric tube shall consist of one or more layers of absorbent non-woven felt fabric, felt/fiberglass or fiberglass and meet the requirements of ASTM F 1216, ASTM F 1743, ASTM D 5813 & ASTM F2019. The fabric tube shall be capable of absorbing and carrying resins, constructed to withstand installation pressures and curing temperatures and have sufficient strength to bridge missing pipe segments, and stretch to fit irregular pipe sections. The contractor shall submit certified information from the felt manufacturer on the nominal void volume in the felt fabric that will be filled with resin.

ii. The wet-out fabric tube shall have a uniform thickness and excess resin distribution that when compressed at installation pressures will meet or exceed the design thickness after cure.

iii. The fabric tube shall be manufactured to a size and length that when installed will tightly fit the internal circumference, meeting applicable ASTM standards or better, of the original pipe. Allowance shall be made for circumferential stretching during installation. The tube shall be properly sized to the diameter of the existing pipe and the length to be rehabilitated and be able to stretch to fit irregular pipe sections and negotiate bends. The Contractor shall determine the minimum tube length necessary to effectively span the designated run between manholes. The Contractor shall verify the lengths in the field prior to ordering and prior to impregnation of the tube with resin, to ensure that the tube will have sufficient length to extend the entire length of the run. The Contractor shall also measure the inside diameter of the existing pipelines in the field prior to ordering liner so that the liner can be installed in a tight-fitted condition.

iv. The outside and/or inside layer of the fabric tube (before inversion/pull-in, as applicable) shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate, if applicable, vacuum impregnation and monitoring of the resin saturation during the resin impregnation (wetout) procedure.

v. No material shall be included in the fabric tube that may cause de-lamination in the cured CIPP. No dry or unsaturated layers shall be acceptable upon visual inspection as evident by color contrast between the felt fabric and the activated resin containing a colorant.

vi. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made. The hue of the color shall be dark enough to distinguish a contrast between the fully resin saturated felt fabric and dry or resin lean areas.

vii. Seams in the fabric tube, if applicable, shall meet the requirements of ASTM D5813.

viii. The outside of the fabric tube shall be marked every five (5) feet with the name of the manufacturer or CIPP system, manufacturing lot and production footage.

ix. The minimum length of the fabric tube shall be that deemed necessary by the installer to effectively span the distance from the starting manhole to the terminating manhole or access point, plus that amount required to run-in and run-out for the installation process.

B. Resin shall be a corrosion resistant polyester or vinyl ester resin and catalyst system that when properly cured within the tube composite meets the requirements of ASTM F1216, ASTM F1743 or F2019, the physical properties herein, and those, which are to be utilized in the design of the CIPP for this project. The resin shall produce CIPP which will comply with or exceed the structural and chemical resistance requirements of this specification.

C. Structural Requirements and Minimum Physical Properties

i. The physical properties and characteristics of the finished liner will vary considerably, depending on the types and mixing proportions of the materials used, and the degree of cure executed. It shall be the responsibility of the Contractor to control these variables and to provide a CIPP system which meets or exceeds the minimum properties specified herein:

ii. The CIPP shall be designed as per ASTM standards. The CIPP design shall assume no bonding to the original pipe wall.

iii. The design engineer shall set the long term (50 year extrapolated) Creep Retention Factor at 33% of the initial design flexural modulus as determined by ASTM D-790 test method. This value shall be used unless the Contractor submits long term test data (ASTM D2990) to substantiate a higher retention factor.

iv. The cured pipe material (CIPP) shall, at a minimum, meet or exceed the structural properties, as listed below.

Property	Test Method	Cured Composite Per ASTM F1216	Cured Composite Per Design
Flexural Modulus of	ASTM D-790	250,000 psi	Contractor Value

Elasticity (Short Term)			
Flexural Strength (Short Term)	ASTM D-790	4,500 psi	Contractor Value
Design Safety Factor	2.0 (1.5 for pipes 36" or larger)		
Creep Retention Factor	33%		
Ovality	2% or as measured by field inspection		
Constrained Soil Modulus	Per AASHTO LRFD Section 12 and AWWA Manual M45		
Groundwater Depth	As specified or indicated on the Plans		
Soil Depth (above the crown)	As specified or indicated on the Plans		
Live Load	Highway, railroad or airport as applicable		
Soil Load (assumed)	120 lb/cu. Ft.		
Minimum service life	50 years		

v. The required structural CIPP wall thickness shall be based, as a minimum, on the physical properties of the cured composite and per the design of the Professional Engineer (see also Section 1.03, Item D) and in accordance with the Design Equations contained in the appendix of the ASTM standards, and the following design parameters:

vi. The Contractor shall submit, prior to installation of the lining materials, certification of compliance with the specifications and/or the requirements of the pre-approved CIPP system. Certified material test results shall be included that confirm that all materials conform to these specifications and/or the pre-approved system. Materials not complying with the requirements will be rejected.

vii. The design soil modulus may be adjusted based on data determined from detailed project soil testing results as provided by the Owner in the contract documents.

2.03 SUBMITTALS

A. Fabric Tube - including the manufacturer and description of project components.

B. Flexible membrane (coating) material - including recommended repair (patching) procedure if applicable.

C. Raw Resin Data - including the manufacturer and description of project components.

D. Pre-Liner - if employed, to manage infiltration/inflow, submittal to include the manufacturer, description of project components, and material sample/swatch.

E. Manufacturers' shipping, storage, and handling recommendations for all components of the CIPP system.

F. All MSDS sheets for all materials to be furnished for the project.

G. Tube wet-out & cure method including:

i. A complete description of the proposed wet-out procedure for the proposed technology.

ii. The Manufacturer's recommended cure method for each diameter and thickness of CIPP liner to be installed. This shall contain a detailed curing procedure detailing the curing medium and the method of application.

PART 3 - EXECUTION

3.01 GENERAL

A. The Contractor shall transport, handle, and store pipes, fittings, and other materials as recommended by the manufacturer.

B. If new materials become damaged before installation, it shall be repaired as recommended by the manufacturer or replaced as required by the Owner Representative at the Contractor's expense, before proceeding further.

3.02 PREPARATION

A. Preparation, cleaning, inspection, sewage by-passing and public notification. The Contractor shall clean the interior of the existing host pipe prior to installation of the CIPP liner. All debris and obstructions, that will affect the installation and the final CIPP product delivery to the Owner, shall be removed and disposed of at the Contractor's cost.

B. The Contractor may, under the direction of the Owner, utilize any of the existing manholes in the project area as installation access points. If a street must be closed to traffic because of the location of the sewer, the Contractor shall furnish a detailed traffic control plan and all labor and equipment necessary. The plan shall be in conformance with the requirements of the local agency having jurisdiction over traffic control.

C. The Contractor shall remove all internal debris from the pipe line that will interfere with the installation and the final product delivery of the CIPP as required in these specifications. Solid debris and deposits shall be removed from the system and disposed of properly by the Contractor. Moving material from manhole section to manhole section shall not be allowed. As applicable the contractor shall either plug or install a flow bypass pumping system to properly clean the pipe lines. Precaution shall be taken, by the Contractor in the use of cleaning equipment to avoid damage to the existing pipe. The repair of any damage, caused by the cleaning equipment, shall be the responsibility of the Contractor. The Owner will designate a site for the disposal of all debris removed, from the Owner's sewer system, as a direct result of the cleaning operation. Unless otherwise specified by the Owner, the Contractor shall dispose of all debris at no charge.

D. The Contractor shall provide for the flow of existing mainline and service connection effluent around the section or sections of pipe designated for CIPP installation. Service connection effluent may be plugged only after proper notification to the affected residence and may not remain plugged overnight. Installation of the liner shall not begin until the Contractor has installed a sewage by-pass system and all pumping facilities have been installed and tested under full operating conditions including the bypass of mainline and side sewer flows. Once the lining process has begun, existing sewage flows shall be maintained, until the resin/felt tube composite is fully cured, cooled down, full televised and the CIPP ends finished. The Contractor shall coordinate sewer bypass and flow interruptions with the Owner at least 14 days in advance and with the property owners and businesses at least 3 business days in advance. The pump and bypass lines shall be of adequate capacity and size to handle peak flows. The Contractor shall submit a detail of the bypass plan and design to the Owner before proceeding with any CIPP installation. Compensation for by-pass pumping and all associated plans and approvals shall be at the price bid therefore in the Proposal.

E. Contractor shall perform post-cleaning video inspections of the pipelines. Only PACP certified personnel trained in locating breaks, obstacles and service connections by closed circuit television shall perform the inspection. The Contractor shall provide the Owner a copy of the pre-cleaning and post-cleaning video and suitable log, and/or in digital format for review prior to installation of the CIPP and for later reference by the Owner.

F. It shall be the responsibility of the Contractor to clear the line of obstructions that will interfere with the installation and long-term performance of the CIPP. If pre-installation inspection reveals an obstruction, misalignment, broken or collapsed section or sag that will prohibit proper installation of the CIPP, the Contractor will be directed by the Owner to correct the problem(s) prior to lining by utilizing open cut point repair methods. The Contractor shall be compensated for this work under the bid item designated for point repairs. The Contractor and Owner are to agree on all point repairs prior to commencement of work or placement of any CIPP lining.

G. The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing and curing the CIPP. If required in the contract documents, each connection will be dye tested to determine whether or not the connection is live or abandoned. In the event the status of a service connection cannot be adequately defined, the Owner will make the final decision, prior to installation and curing of the liner, as to the status. Typically only service connections deemed "active" shall be reopened by the Contractor.

H. The Contractor shall be allowed use water from an owner-approved fire hydrant in the project vicinity. Use of an approved double check backflow assembly shall be required. Contractor shall provide his own approved assembly. Contractor shall pay current market price for all water usage.

I. The Contractor shall be solely responsible for managing groundwater in all work areas in which he is operating, to include manholes and sewer segments being rehabilitated. This is to include management of any and all infiltration/inflow. Contractor is encouraged to use a pre-liner as necessary to aid in CIPP installation. All work under this item shall

considered incidental to the various bid items and at no additional cost to the Owner.

J. The Contractor shall be solely responsible for access to the areas in which he is working. Contractor shall be allowed to use COH rights-of-way and/or utility easements associated directly with the sanitary sewer lines to be rehabilitated, using proper traffic control. Provision of access to the project sites shall be at no additional cost to the Owner.

3.03 CIPP INSTALLATION

A. The CIPP Liner shall be installed and cured in the host pipe per the manufacturer's specifications as described and submitted in the project submittals.

B. CIPP installation shall be in accordance with the applicable ASTM standards as referenced in Section 1.06.

C. The wet-out tube shall be positioned in the pipeline using the method specified by the manufacturer. Care should be exercised not to damage the tube as a result of installation. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.

D. Prior to installation remote temperature gauges or sensors shall be placed inside the host pipe to monitor the temperatures during the cure cycle (both heat-up and cool-down) to verify that a full cure has taken place along the entire length of the liner. The temperature monitoring system shall monitor the entire length of the liner incrementally at intervals no larger than 18". Monitoring must take place in the bottom third of the pipe liner. Systems that measure only at each end or in intervals wider than 18" shall not be allowed.

The Contractor shall deliver to the owner in the form of a visual graphic "waterfall" representation of the entire cure process as it relates to time, temperature and footage. For quality assurance purposes, the system must have the ability to be remotely viewed "live" by the Engineer/Owner. Data collected shall be delivered in both an MS Excel spreadsheet and read-only graphical viewer formats.

E. Curing shall be accomplished by utilizing the appropriate medium in accordance with the manufacturer's recommended cure schedule. The curing source or in and output temperatures shall be monitored and logged during the cure cycles. The manufacturer's recommended cure schedule shall be used for each line segment installed, and the liner wall thickness and the existing ground conditions with regard to temperature, moisture level, and thermal conductivity of soil, per ASTM as applicable, shall be taken into account by the Contractor.

3.04 COOL DOWN

A. The Contractor shall cool the CIPP in accordance with the approved CIPP manufacturer's recommendations as described and outlined in the project submittals.

B. Temperatures and curing data shall be monitored and recorded, by the Contractor, throughout the installation process to ensure that each phase of the process is achieved as approved in accordance with the CIPP System manufacturer's recommendations. (See Section 3.03, Item D for additional requirements).

3.05 FINISH

A. The installed CIPP shall be continuous over the entire length of a sewer line section and be free from visual defects such as foreign inclusions, dry spots, pinholes, major wrinkles and de-lamination. The lining shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to inside the lined pipe. Any defects shall be repaired or replaced to the satisfaction of the Owner at Contractor's sole expense with no additional compensation for such remedial work.

B. Any defect, which will or could affect the structural integrity or strength of the linings, shall be repaired at the Contractor's expense, in accordance with Section 3.06 CIPP Repair/Replacement.

C. The beginning and end of the CIPP shall be sealed to the existing host pipe. The sealing material shall be compatible with the pipe end and shall provide a watertight seal.

D. If any of the service connections leak water between the host pipe and the installed liner, the connection mainline interface shall be sealed to provide a water tight connection.

E. If the wall of the CIPP leaks, it shall be repaired or removed and replaced with a watertight pipe as recommended by the manufacture of the CIPP system.

F. Compensation shall be at the actual length of cured-in-place pipe installed. The length shall be measured from center of manhole to center of manhole. The unit price per linear foot installed shall include all materials, labor, equipment and supplies necessary for the complete CIPP liner installation. Compensation for service connection sealing shall be at the unit price bid therefore in the Proposal.

3.06 CIPP REPAIR/REPLACEMENT

A. Occasionally installation of will result in the need to repair or replace a defective CIPP. The Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed CIPP. Repair/replacement procedures shall be as recommended by the CIPP system manufacturer and shall be submitted as part of the PWS.

B. Defects in the installed CIPP that will not affect the operation and long term life of the product shall be identified and defined.

C. Repairable defects that may occur in the installed CIPP shall be specifically defined by the Contractor based on manufacturer's recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of these contract specifications.

D. Un-repairable defects that may occur to the CIPP shall be clearly defined by the Contractor based on the manufacturer's recommendations, including a recommended procedure for the removal and replacement of the CIPP.

3.07 MANHOLE CONNECTIONS AND RECONNECTIONS OF EXISTING SERVICES

A. A seal, consisting of a resin mixture or hydrophilic seal compatible with the installed CIPP shall be applied at manhole walls in accordance with the CIPP System manufacturer's recommendations.

B. Existing services shall be internally or externally reconnected unless indicated otherwise in the contract documents. This item shall be paid for under the separate bid item "REINSTATE SERVICE CONNECTION (MATERIAL AND INSTALLATION)."

C. Reconnections of existing services shall be made after the CIPP has been installed, fully cured, and cooled down. It is the Contractor's responsibility to make sure that all active service connections are reconnected.

D. External reconnections are to be made with a tee fitting in accordance with CIPP System manufacturer's recommendations. Saddle connections shall be seated and sealed to the new CIPP using grout or resin compatible with the CIPP.

E. A CCTV camera and remote cutting tool shall be used for internal reconnections. The machined opening shall be at least 95 percent of the service connection opening and the bottom of both openings must match. The opening shall not be more than 100 percent of the service connection opening. The edges of the opening shall not have pipe fragments or liner fragments, which may obstruct flow or snag debris.

F. In the event that service reinstatements result in openings that are greater than 100 percent of the service connection opening, the Contractor shall install a CIPP type repair, sufficiently in size to completely cover the over-cut service connection. No additional compensation will be paid for the repair of over-cut service connections.

G. Coupons of pipe material resulting from service tap cutting shall be collected at the next manhole downstream of the pipe rehabilitation operation prior to leaving the site. Coupons may not be allowed to pass through the system.

3.08 TESTING OF INSTALLED CIPP

A. The physical properties of the installed CIPP shall be verified through field sampling and laboratory testing. All materials for testing shall be furnished by the Contractor to the Owner for testing. All materials testing shall be performed at the Owner's expense, by an independent third party laboratory selected by the Owner as recommended by the CIPP manufacturer. All tests shall be in accordance with applicable ASTM test

methods to confirm compliance with the requirements specified in these contract documents.

B. The Contractor shall provide samples for testing to the Owner from the actual installed CIPP liner. Samples shall be provided, at a minimum from one location per 1000 linear feet of CIPP installed. The sample shall be cut from a section of cured CIPP that has been inverted or pulled through a like diameter pipe which has been held in place by a suitable heat sink, such as sandbags. All curing, cutting and identification of samples will be witnessed by the Owner and transmitted by the Owner to the testing laboratory.

On pipelines greater in diameter than is practical to produce restrained samples, the Owner may at its discretion, require plate samples cured with the CIPP or designate a location in the newly installed CIPP where the Contractor shall take a sample. The Opening produced from the sample shall be repaired in accordance with manufacturers recommended procedures.

C. The laboratory results shall identify the test sample location as referenced to the nearest manhole and station. Final payment for the project shall be withheld pending receipt and approval of the test results. If properties tested do not meet minimum requirements, the CIPP shall be repaired or replaced by the Contractor, at no additional cost to the Owner.

D. The CIPP system installed shall meet the chemical resistance requirements of ASTM standards. CIPP samples tested shall be of fabric tube and the specific resin proposed for actual construction. It is required that CIPP samples without plastic coating meet these chemical testing requirements.

E. Overall, the hydraulic capacity shall be maintained as large as possible. The installed CIPP shall at a minimum be equal to the full flow capacity of the original pipe before rehabilitation. In those cases where full capacity cannot be achieved after liner installation, the Contractor shall submit a request to waive this requirement, together with the reasons for the waiver request. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

F. The installed CIPP thickness shall be measured for each line section installed. If the CIPP thickness does not meet that specified in the contract and submitted as the approved design by the Contractor then the liner shall be repaired or removed. The liner thickness shall have tolerance of minus 5% plus 10%. In man-entry size piping the Contractor shall remove a minimum of one sample or one sample every line section of installed CIPP, not meeting the specified design thickness, to be used to check the liner thickness. The samples shall be taken by core drilling 2-inch diameter test plugs at random locations selected by the Owner. As an alternative the Contractor may use industry proven, non-destructive methods for confirming the thickness of the installed CIPP.

G. All costs, to the Contractor, associated with providing cured CIPP samples for testing shall be included in the Lump Sum price bid for Mobilization. Payment for all testing by a laboratory will be paid for by the Owner.

3.09 AS-BUILT DRAWINGS

A. As-Built drawings, pre & post inspection videotapes and/or CD's shall be submitted to the Owner, by the Contractor within 2 weeks of final acceptance of said work or as specified by the Owner. As-Built drawings will include the identification of the work completed by the Contractor and shall be prepared on one set of Contract Drawings provided to the Contractor at the onset of the project.

B. As-Built drawings shall be kept on the project site at all times, shall include all necessary information as outlined or as agreed to by the Owner and the Contractor at the start of the Contract and shall be updated as the work is being completed, and shall be clearly legible.

C. Compensation for all work required for the submittal and approval of As-Built Drawings shall be considered incidental to the various bid items.

3.10 FINAL ACCEPTANCE

A. All CIPP sample testing and repairs to the installed CIPP as applicable, shall be completed, before final acceptance, meeting the requirements of these specifications and documented in written form.

B. The Contractor shall perform a detailed closed-circuit television inspection in accordance with ASTM standards, in the presence of the Owner after installation of the CIPP liner and reconnection of the side sewers. A radial view (pan and tilt) TV camera shall be used. The camera shall be panned 360 degrees around the circumference of the pipe and along the wall of the finished pipe at 10 foot intervals. The finished liner shall be continuous over the entire length of the installation and shall be free of significant visual defects, damage, deflection, holes, leaks and other defects. Unedited digital documentation of the inspection shall be provided to the Owner within ten (10) working days of the liner installation. The data shall note the inspection date, location of all reconnected side sewers, debris, as well as any other defects in the liner, including, but not limited to, gouges, cracks, bumps, or bulges. If post installation inspection documentation is not submitted within Ten (10) working days of the liner installation, the Owner may at its discretion suspend any further installation of CIPP until the post-installation documentation is submitted. As a result of this suspension, no additional working days will be added to the contract, nor will any adjustment be made for increase in cost. Immediately prior to conducting the closed circuit television inspection, the Contractor shall thoroughly clean the newly installed liner removing all debris and buildup that may have accumulated.

C. Bypass pumping or plugging from the upstream manhole shall be utilized to minimize sewage from entering the line during the inspection. In the case of bellies in the line, the pipe shall be cleared of any standing water to provide continuous visibility during the inspection.

D. Where leakage is observed through the wall of the pipe, the contractor shall institute additional testing including but not limited to air testing, localized testing and any other testing that will verify the leak-proof integrity of the installed CIPP to the satisfaction of the Owner.

3.11 WARRANTY

A. The materials used for the project shall be certified by the manufacturer for the specified purpose. The manufacturer shall warrant the liner to be free from defects in raw materials for one (1) year from the date of installation and acceptance by the Owner. The Contractor shall warrant the liner installation for a period of one (1) year. During the Contractor warranty period any defect, which may materially affect the integrity, strength, function and/or operation of the pipe, shall be repaired at the Contractor's expense in accordance with procedures included in Section 3.06 CIPP Repair/Replacement.

B. After a pipe section has been lined and for a period of time up to one (1) year following completion of the project, the Owner may inspect all or portions of the lined system. The specific locations will be selected at random by the Owner and will include all sizes of CIPP from this project. If it is found that any of the CIPP has developed abnormalities since the time of "Post Construction Television Inspection," the abnormalities shall be repaired and/or replaced as defined in Section 3.06 CIPP Repair/Replacement. If, after inspection of a portion of the lined system under the contract, problems are found, the Owner may televise all the CIPP installed on the contract. All verified defects shall be repaired and/or replaced by the Contractor and shall be performed in accordance with Section 3.06 CIPP Repair/Replacement and per the original specifications, all at no additional cost to the Owner.

END OF SECTION

SECTION 02695

CURED-IN-PLACE PIPE (CIPP) LATERAL REHABILITATION

PART 1 - GENERAL

1.01 WORK INCLUDED

A. This specification defines the approved systems and materials for the rehabilitation of existing gravity sewer lines by the cured-in-place pipe lateral lining process.

B. The Contractor shall include all labor, materials, equipment and services necessary for dewatering, traffic control, bypass pumping and/or diversion of sewage flows, cleaning and television inspection of sewers to be lined, liner installation, reconnection of service connections, all quality controls, samples for performance of required material tests, final television inspection, and testing of lined pipe system and warranty work necessary to provide for the complete rehabilitation of deteriorated gravity sewer lines by the CIPP system, all as specified herein.

C. This bid item is defined as the re-construction of a service lateral and connection in 8" through 24" mainline pipes, normally without excavation, by the installation of a one piece resin impregnated, flexible, non-woven felt tube installed into the existing lateral connection utilizing a pressure apparatus positioned in the mainline pipe. Curing shall be accomplished by use of ambient cure resin or other approved method to cure the resin into a hard impermeable cured-in-place (CIPP) pipe liner. When cured, the liner shall have a watertight connection seal at the mainline and extend over the length of the service lateral in a continuous one piece structural pipe-within-a-pipe. The new lining shall extend up to five (5) feet into the lateral connection as measured from the downstream terminus at the sewer line into which it drains.

D. This specification represents the minimum requirements for the rehabilitation of sanitary sewer pipelines by the installation of Cured-In-Place Pipe (CIPP) within the existing, deteriorated pipe as shown on the plans included as part of these contract documents. The Contractor shall abide by any manufacturer's specifications that exceed these specifications.

1.02 RELATED WORK

- A. Section 01300 - Submittals
- B. Section 02600 - Maintaining Wastewater Flow
- C. Section 02619 - Television Inspection
- D. Section 02620 - Sanitary Sewer Cleaning
- E. Section 02690 - Cured-In-Place Pipe (CIPP)

1.03 SUBMITTALS

A. The manufacturer's installation procedures shall be submitted for approval by the Owner Representative before the commencement of installation. Where the scope of work is specifically delineated in the contract documents, the Contractor shall submit a detailed installation plan describing all of the following: preparation work, cleaning operations, pre-CCTV inspections, bypass pumping, traffic control, installation procedure, handling procedures, material storage locations, method of curing, service reconnection, quality control, testing to be performed, final CCTV inspection, project schedule, EPSC plan, cleanup plan, residential notification, warranties furnished and all else necessary and applicable for a complete CIPP liner installation.

B. The Contractor shall submit with the bid proof of experience matching the outlines in Section 400, Bidders Qualifications.

C. Shop drawings and product data shall be submitted for approval before any work commences.

D. Engineering design calculations, in accordance with the Appendix of ASTM F-1216, for each length of liner to be installed including the thickness of each proposed CIPP. It will be acceptable for the Contractor to submit a design for the most severe line condition and apply that design to all of the line sections. These calculations shall be performed and certified by a, qualified, Professional Engineer. All calculations shall include data that conforms to the requirements of these specifications or has been pre-approved by the Owner.

E. Submittals shall include information on the cured-in-place pipe intended for installation and all tools and equipment required for a complete installation. Contractor shall identify which tools and equipment will be redundant on the job site in the event of equipment breakdown. All equipment, to be furnished for the project, including proposed back-up equipment, shall be clearly described. The Contractor shall outline the mitigation procedure to be implemented in the event of key equipment failure during the installation process.

F. A detailed description of the Contractor's proposed procedures for removal of any existing blockages in the pipeline that may be encountered during the cleaning process.

G. Compensation for all work required for the various submittals contained within this section shall be included in the various pipelining items contained in the Proposal.

1.04 QUALITY ASSURANCE AND PRODUCT DELIVERY

A. The CIPP lateral lining shall be continuous and joint-less and shall be free of all defects that will affect the long term life and operation of the pipe.

B. The CIPP lateral lining shall fit sufficiently tight within the existing pipe so as to not leak at the service connections or through the wall of the installed pipe. If leakage occurs at the service connections the Contractor shall seal these areas to stop all leakage using a material compatible with the CIPP as directed by the Owner at the price bid therefore in the Proposal. If leakage occurs through the wall of the pipe the liner shall be repaired or removed as recommended by the CIPP manufacturer. Final approval of the liner installation will be based on a leak tight pipe.

C. The CIPP shall be designed for a life of 50 years or greater. The installed CIPP shall have a long term (50 year) corrosion resistance to the typical chemicals found in domestic sewage. The CIPP may be designed as a liner to rehabilitate the existing pipe or as a fully structural stand alone pipe-within-a-pipe. The installed CIPP shall withstand all applicable surcharge loads (soil overburden, live loads, etc.) and external hydrostatic (groundwater) pressure, if present, for each specific installation location.

D. Neither the CIPP system, nor its installation, shall cause adverse effects to any of the Owner's processes or facilities. The use of the product shall not result in the formation or production of any detrimental compounds or by-products at the wastewater treatment plant. The Contractor shall notify the Owner and identify any by-products produced as a result of the installation operations, test and monitor the levels, and comply with any and all local waste discharge requirements. The Contractor shall cleanup, restore existing surface conditions and structures, and repair any of the CIPP system determined to be defective. The Contractor shall conduct installation operations and schedule cleanup in a manner to cause the least possible obstruction and inconvenience to traffic, pedestrians, businesses, and property owners or tenants.

E. All materials furnished, as part of this contract shall be marked with detailed product information, stored in a manner specified by the manufacturer and tested to the requirement of this contract.

F. Testing and warranty inspections shall be executed by the Owner. Any defects found shall be repaired or replaced by the Contractor.

G. The Contractor shall furnish all samples for product testing at the request of the Owner. The Owner shall take possession of the samples for testing and shall maintain the chain of custody, deliver the samples to an

approved laboratory and pay for all material and product testing performed under this contract.

1.05 SAFETY

A. The Contractor shall conform to all work safety requirements of pertinent regulatory agencies, and shall secure the site for the working conditions in compliance with the same. The Contractor shall erect such signs and other devices as are necessary for the safety of the work site.

B. The Contractor shall perform all of the Work in accordance with applicable OSHA standards. Emphasis shall be placed upon the requirements for entering confined spaces and with the equipment being utilized for pipe renewal.

C. The Contractor shall submit a proposed Safety Plan to the Owner, prior to beginning any work, identifying all competent persons. The plan shall include a description of a daily safety program for the job site and all emergency procedures to be implemented in the event of a safety incident. All work shall be conducted in accordance with the Contractor's submitted Safety Plan.

D. Compensation for all work required for the submittal of the Safety Plan shall be included in the various pipelining items contained in the Proposal.

1.06 REFERENCES

The following documents form a part of this specification to the extent stated herein and shall be the latest editions thereof. Where differences exist between codes and standards, the requirements of these specifications shall apply.

ASTM -F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

ASTM -F1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pull in and inflate and Curing of a Resin-Impregnated Tube

ASTM -D543 Standard and Practice for Evaluating the Resistance of Plastics to Chemical Reagents

ASTM -D638 Standard Test Method for Tensile Properties of Plastics

ASTM -D790 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

ASTM -D792 Standard Test Methods for Density and Specific Gravity of Plastics by displacement.

ASTM -F2019-03 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP)

ASTM -D2122-98(2004) Standard Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings

ASTM -D2990 Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics

ASTM -D3567-97(2002) Standard Practice for Determining Dimensions of Fiberglass (Glass-Fiber-Reinforced Thermosetting Resin) Pipe and Fittings

ASTM -D3681 Standard Test Method for Chemical Resistance of "Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Pipe in a Deflected Condition

ASTM -D5813 Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe

1.07 PATENT INFRINGEMENT

The Contractor shall hold the Owner and Owner Representative whole and harmless in any legal action resulting from patent infringement.

1.08 PUBLIC NOTIFICATION

A. 72 hours prior to disruption of service, the Contractor shall notify property owners, public, residents, and all others who may be affected using a notification form approved by the Owner. Emergency work notification by the contractor will be at the discretion of the Owner Representative.

B. The Contractor shall use dye testing or another approved method for determining active service connections. Service lines that are not active are not to be reconnected unless directed by the Owner or Owner Representative.

C. The Contractor shall disrupt customer service for no longer than 12 hours. If service will be disrupted for more than 12 hours or overnight, the Contractor must notify affected customers and the Owner of the delay and make necessary arrangements to keep temporary service to the residence.

1.09 PROJECT DOCUMENTATION

A. The Contractor shall make a walk through video prior to the start of construction and another immediately after the completion of the project. These videos shall document the condition of the entire project area. The project name, contract number, and the date and time of filming shall be clearly identified in the videos. The location within the project area shall be clearly identified as filming progresses.

B. Videos shall be submitted to the Owner's inspector at the earliest possible date.

C. Pre-construction video inspections and logs documenting the existing pipe conditions and construction areas shall be submitted not less than 72 hours prior to the commencement of CIPP activities. Emergency projects shall waive 72 hour submittal.

D. The Contractor shall perform Television Video Inspection immediately prior and immediately following CIPP installation. All videos are to be clearly documented the location, date and time of the inspection and shall be provided to the Owner within 24 hours of completion of work of each individual line segment.

1.10 EXISTING DOCUMENTATION AVAILABILITY

The Owner will make available to the Contractor or Prospective Bidders all existing sewer information and television inspections. The Contractor or Bidder shall make arrangements with the Owner to view this information by appointment only, Monday - Friday between the hours of 6:00 AM and 5:00 PM. See the contact information below:

Address: City of Huntsville
Department of Water Pollution Control
1800 Vermont Road
Huntsville, AL 35804

Contact: Mr. Mark Huber

Phone: (256) 883-3777

1.11 QUALIFICATIONS

A. The Contractor is required to have at least one qualifying superintendent on the job during construction activities. The qualifying superintendent and crew that will be undertaking the work must meet the experience requirements noted in Section 00400. Crews and superintendent shall be able to respond onsite within twenty four hours of notification for an emergency project.

B. A minimum of five (career) years flow diversion supervisory field experience is required.

C. See experience qualifications in section 00400 of the Supplemental specifications.

PART 2 - PRODUCTS

2.01 GENERAL

A. The finished replacement pipe/liner shall be fabricated from materials which will be chemically resistant to withstand internal exposure to municipal wastewater and meet the chemical requirements specified in this section.

B. All materials, shipped to the project site, shall be accompanied by test reports certifying that the material conforms to the ASTM standards listed herein. Materials shall be shipped, stored, and handled in a manner consistent with written recommendations of the CIPP system manufacturer to avoid damage. Damage includes, but is not limited to, gouging, abrasion,

flattening, cutting, puncturing, or ultra-violet (UV) degradation. On site storage locations, shall be approved by the Owner. All damaged materials shall be promptly removed from the project site at the Contractor's expense and disposed of in accordance with all current applicable regulations.

2.02 MATERIALS

A. GENERAL REQUIREMENTS

- i. Tube and resin will meet the requirements of ASTM F 1216, F1743 and D5813.
- ii. In industrial areas subject to possible flows other than domestic sewage, the Owner shall obtain samples of the dry weather sewage flow to be analyzed for chemical content. This analysis shall be supplied to the Installer for his information.

B. CIPP LATERAL MATERIALS

- i. The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the conduit specified by the Owner. Allowance shall be made for circumferential stretching during insertion. The liner shall be a one piece joint-less polyester felt tube that will create a watertight seal at the mainline interface.
- ii. The minimum length shall be 36 inches (3 feet) to effectively span the distance from the lateral connection at the main or to the desired termination location in the service lateral pipe. For the purpose of this specification, the termination point shall be a distance within 18 inches of the intersection of a cleanout or property line. Lateral lining will be accomplished without a cleanout when possible. In the event a cleanout is required to complete the lining of the lateral, the Contractor is responsible for including the costs associated with the installation of the cleanout in his bid price for lateral lining (bid item 4 on page 8). When required, an overlap method is performed with a pull-in-process installation from a cleanout or access point back to the main. In either case, the lateral liner must provide a watertight seal at the mainline and a structural repair of the lateral over the specified length. The Installer shall verify the lengths in the field before impregnation of the resin.
- iii. Unless otherwise specified, the Installer shall furnish a specially designed, unsaturated, Polyester or Vinylester resin catalyst system compatible with the cured-in-place

process that provides cured physical strengths specified herein.

C. PHYSICAL STRENGTH

- i. The structural performance of the finished pipe must be adequate to accommodate all anticipated loads throughout its design life. No cured-in-place pipe reconstruction technology will be allowed that requires bonding to the existing pipe for any part of its structural strength. Only resin vacuum impregnation will be allowed. If reinforcing materials (fiberglass, etc.) are used, the reinforcing material must be fully encapsulated within the resin to assure that the reinforcement is not exposed, either to the inside of the pipe or at the interface of the CIPP and the existing pipe.
- ii. Design methods are to be derived from traditionally accepted pipe formulas for various loading parameters and modes of failure. All equations will be modified to include ovality as a design parameter. The design method shall be submitted to the Engineer for approval prior to the pre-bid conference.
- iii. The CIPP lateral pipe shall conform to the minimum structural standards as listed below:

<u>PROPERTY</u>	<u>ASTM Standard</u>	<u>RESULTS</u>
Flexural Stress	ASTM D 790	4,500 psi
Flexural Modulus	ASTM D 790	250,000 psi

D. APPROVED MANUFACTURES/PRODUCTS:

- i. BLD "Service Connection Seal + Lateral" of BLD Services, LLC
- ii. or pre-approved equal

2.03 SUBMITTALS

A. PRODUCT DATA

- i. Resin
 - 1. Long term test creep data confirming the resin system's 50 year design life in accordance with ASTM D2990.
 - 2. Chemical Resistance per ASTM F 1216
 - 3. Certificate of Compliance with ASTM F 1216
- ii. Tube
 - 1. Certificate of Compliance with ASTM F1216
 - 2. If glass fiber reinforcement is used, CIPP strain Corrosion testing data in accordance with ASTM D3681
- iii. CIPP wall thickness design calculations (for lateral liner) in accordance with ASTM F1216
- iv. Manufacturers' shipping, storage, and handling recommendations for all components of the CIPP system.
- v. All MSDS sheets for all materials to be furnished for the project.

PART 3 - EXECUTION

3.01 GENERAL

A. The Contractor shall transport, handle, and store pipes, fittings, and other materials as recommended by the manufacturer.

B. If new materials become damaged before installation, it shall be repaired as recommended by the manufacturer or replaced as required by the Owner Representative at the Contractor's expense, before proceeding further.

3.02 PREPARATION

A. Access - If the Contractor requires access through a cleanout or access pit to complete the lateral lining, the costs associated with the cleanout or access pit will be the responsibility of the Contractor and must be included within bid item 4 on page 8. If a cleanout already exists or is required by the Owner, it shall be constructed of materials which provide a four inch (4") minimum diameter circular opening, if service lateral is six inch (6") than a six inch minimum diameter opening is required. Any cleanouts will comply with Page 9 and must be wye connections (Tee connection will not be permitted) to allow video inspection, cleaning and lining access.

Safety - The Installer shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined spaces.

B. Cleaning of Sewer Line - The intent of this specification is for cleaning of the lateral to be accomplished from the mainline pipes via lateral launching equipment. If the lateral cannot be cleaned using industry standard cleaning heads that can be launched from the mainline then a cleanout will be required and considered changed conditions. The laterals shall be cleaned a sufficient length to ensure the specified length of sewer

is ready for lining. It shall be the responsibility of the Installer to verify, prior to installation, that all internal debris has been removed from the sewer line. Internal debris consists of broken pipe sections, roots, loose gravel, etc.

C. Inspection of Pipelines - It is the intent of this specification for inspection of the lateral to be accomplished from the mainline pipes via lateral launching equipment. If the lateral cannot be inspected using industry standard inspection equipment that can be launched from the mainline then a cleanout will be required and considered changed conditions. Inspection of pipelines shall be performed by experienced personnel trained in locating breaks and obstacles by closed circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the lateral liner into the pipelines, and it shall be noted so that these conditions can be corrected. A DVD and suitable log shall be kept for later reference by the Owner.

D. Bypassing Sewage - The Installer, when required, shall provide for the flow of sewage around the section or sections of mainline pipe where the service lateral designated for lining is located. The bypass shall be made by plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. It is assumed that flows in the lateral specified for lining will not require bypass pumping.

E. It is required that the service lateral be inactive during the time of installation. This is normally accomplished by turning off the homeowner's services or requesting that the homeowner relinquish using his services during the period of installation. Notification will be distributed to impacted residents 24 hours in advance of the lateral liner installation.

F. Line Obstructions - If inspection reveals an obstruction that cannot be removed by conventional sewer cleaning equipment, as in solids, dropped joints or collapsed pipe then the Installer shall make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner's representative prior to the commencement of the work and shall be considered as a separate pay item.

G. In the case of lined mainline pipes, the lateral connection specified for rehabilitation shall be reinstated to 100% of its original size to accept the CIPP lateral.

3.03 LATERAL LINING INSTALLATION

A. The Installer shall designate a location where the liner will be vacuum impregnated prior to installation. The Installer shall allow the Owner to inspect the materials and "wet-out" procedure. A catalyst system compatible with the resin and liner shall be used.

B. The wet-out liner shall be loaded inside a pressure apparatus above ground and utilizing a hydrophilic sealant (or equivalent) on the backside of the connection to enhance a watertight seal. Also, a two-part 100% solid epoxy (reference ASTM C-881) shall be applied to the lateral brim

interface to insure adhesion against the host pipe. The pressure apparatus, with an end attached to a robotic device, shall be winched through the mainline pipe to the service connection. The robotic device, together with a television camera, will be used to position the pressure apparatus' inversion elbow at the service connection opening. Air pressure, supplied to the pressure apparatus through an inversion hose, shall be used to invert the wet-out liner through the lateral pipe to the cleanout/access point or "Right of Way" point. The inversion head will be adjusted to be of sufficient pressure to cause the impregnated liner to invert completely in the lateral pipe and hold the tube tight to the pipe wall. Care shall be taken during the curing process so as not to overstress the tube.

C. Curing - In most circumstances, an accelerated ambient-temperature curing resin system will be utilized, however if a heat cure is required, the Installer shall supply a suitable heat source and recirculation equipment. The equipment shall be capable of delivering the approved heating medium throughout the section to the temperature required to affect a cure of the resin. This temperature shall be determined by the resin/catalyst system employed.

D. If a heat cure is required, the heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing air/steam or water supply. Fluid temperature in the line during the cure period shall be recommended by the resin manufacturer. **NOTE: No UV cure systems will be allowed.**

E. Initial cure shall be deemed to be completed when inspection of the exposed portions of the CIPP appears to be hard and sound and/or the temperature gauge indicates that the temperature is of a magnitude to realize an exotherm. The cure period shall be of a duration recommended by the resin manufacturer, as modified for the installation process.

F. Cool-down - The Installer shall cool the hardened CIPP to a temperature below 100°F before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus to replace water being forced out of the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.

G. Finish - The finished CIPP shall be a watertight connection seal at the mainline and extend continuous over the entire length of the service lateral and be free of dry spots, lifts, and delamination. This continuous one piece structural pipe-within-a-pipe shall not inhibit the closed circuit television post video inspection of the mainline or service lateral pipes.

H. Testing - For every 50 laterals, one flat plate sample shall be taken and sent to a 3rd party test laboratory for confirmation of short term flexural modulus and strength properties in accordance with ASTM F1216. The test results shall meet or exceed the values used in the design of the CIPP lateral liner.

I. During the warranty period, any defects which will affect the integrity or strength of the CIPP liner shall be repaired at the Installer's expense in a manner mutually agreed upon by the Owner and the Installer.

J. After the work is completed, the Installer will provide the Owner with a CD or DVD showing the completed work including the restored conditions.

3.04 FINISH

A. The installed CIPP shall be continuous over the entire length of a sewer line section and be free from visual defects such as foreign inclusions, dry spots, pinholes, major wrinkles and de-lamination. The lining shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to inside the lined pipe.

B. Any defect, which will or could affect the structural integrity or strength of the linings, shall be repaired at the Contractor's expense, in accordance with Section 3.06 CIPP Repair/Replacement.

C. The beginning and end of the CIPP shall be sealed to the existing host pipe. The sealing material shall be compatible with the pipe end and shall provide a watertight seal.

E. If the wall of the CIPP leaks, it shall be repaired or removed and replaced with a watertight pipe as recommended by the manufacture of the CIPP system.

F. Compensation shall be on a lump sum basis for each lateral of cured-in-place pipe installed, up to a distance of five (5) feet as measured from the lateral mouth to the end of the CIPP lining material. The unit price per linear foot installed shall include all materials, labor, equipment and supplies necessary for the complete CIPP lateral installation. Compensation for service connection sealing shall be incidental and included in the Proposal.

3.05 CIPP REPAIR/REPLACEMENT

A. Occasionally installation of will result in the need to repair or replace a defective CIPP. The Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed CIPP. Repair/replacement procedures shall be as recommended by the CIPP system manufacturer and shall be submitted as part of the PWS.

B. Defects in the installed CIPP that will not affect the operation and long term life of the product shall be identified and defined.

C. Repairable defects that may occur in the installed CIPP shall be specifically defined by the Contractor based on manufacturer's recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of these contract specifications.

D. Un-repairable defects that may occur to the CIPP shall be clearly defined by the Contractor based on the manufacturer's recommendations, including a recommended procedure for the removal and replacement of the CIPP.

3.06 AS-BUILT DRAWINGS

A. As-Built drawings, pre & post inspection videotapes and/or CD's shall be submitted to the Owner, by the Contractor within 2 weeks of final acceptance of said work or as specified by the Owner. As-Built drawings will include the identification of the work completed by the Contractor and shall be prepared on one set of Contract Drawings provided to the Contractor at the onset of the project.

B. As-Built drawings shall be kept on the project site at all times, shall include all necessary information as outlined or as agreed to by the Owner and the Contractor at the start of the Contract and shall be updated as the work is being completed, and shall be clearly legible.

C. Compensation for all work required for the submittal and approval of As-Built Drawings shall be included in the various bid items contained in the Proposal.

3.07 FINAL ACCEPTANCE

A. All CIPP sample testing and repairs to the installed CIPP as applicable, shall be completed, before final acceptance, meeting the requirements of these specifications and documented in written form.

B. The Contractor shall perform a detailed closed-circuit television inspection in accordance with ASTM standards, in the presence of the Owner after installation of the CIPP liner. A radial view (pan and tilt) TV camera shall be used. The camera shall be panned 360 degrees around the circumference of the pipe and along the wall at least once per installation. The finished liner shall be continuous over the entire length of the installation and shall be free of significant visual defects, damage, deflection, holes, leaks and other defects. Unedited digital documentation of the inspection shall be provided to the Owner within ten (10) working days of the liner installation. The data shall note the inspection date, location of all reconnected side sewers, debris, as well as any other defects in the liner, including, but not limited to, gouges, cracks, bumps, or bulges. If post installation inspection documentation is not submitted within Ten (10) working days of the liner installation, the Owner may at its discretion suspend any further installation of CIPP until the post-installation documentation is submitted. As a result of this suspension, no additional working days will be added to the contract, nor will any adjustment be made for increase in cost. Immediately prior to conducting the closed circuit television inspection, the Contractor shall thoroughly clean the newly installed liner removing all debris and buildup that may have accumulated.

C. Bypass pumping or plugging from the upstream manhole shall be utilized to minimize sewage from entering the line during the inspection. In the case of bellies in the line, the pipe shall be cleared of any standing water to provide continuous visibility during the inspection.

D. Where leakage is observed through the wall of the pipe, the contractor shall institute additional testing including but not limited to air testing, localized testing and any other testing that will verify the leak-proof integrity of the installed CIPP to the satisfaction of the Owner.

3.08 WARRANTY

A. Contractor warrants to Owner that all products and work provided by Contractor to Owner under this Agreement will be free from material defects in workmanship and materials for a period of one (1) year from the earlier of the date on which Contractor's work is accepted by Owner or the date on which the Contractor completes performance and leaves the worksite. In the event that a material defect in workmanship or materials supplied by Contractor is found during the one year period following acceptance of the work, then such defect shall be repaired, replaced or adjusted by Contractor at no additional cost to Owner. Owner's exclusive remedy in the event of any warranty claim hereunder is limited to correction of such defect, adjustment, repair or replacement as the Contractor shall at its sole option elect. The foregoing warranty is the exclusive warranty provided by contractor and is given in lieu of all other warranties, whether express, implied or statutory, including but not limited to, any implied warranties of merchantability or fitness or suitability for a particular purpose or use; and all other warranties are hereby expressly disclaimed.

B. In no event shall Contractor's liability for warranties hereunder exceed the purchase price paid by the Owner for Contractor's work and materials.

C. The warranty set out above shall be void and of no effect in the event that (i) Contractor is not notified of claim of defect within the one year period provided above; (ii) Contractor is not provided timely and unrestricted access to the site at which the claimed defect is located in order to investigate and/or repair, adjust or replace the work or materials claimed to be defective or Contractor is not provided suitable working conditions to perform such investigation, repair, adjustment or replacement; (iii) any materials or work is exposed to chemicals or substances other than those listed in the Specifications to this Agreement as accepted by Contractor; (iv) site conditions or pipeline, conduit or access way conditions are other than those disclosed to and accepted by Contractor; (v) Owner's site, pipeline, conduit or access ways are cleaned or modified in a manner not disclosed in writing to and accepted in writing by Contractor in advance of commencement of Contractor's work or tampered with prior to, during or after completion of Contractor's work; or (vi) the work, the site at which the work is performed or the materials provided by Contractor are otherwise abused or misused.

END OF SECTION

**SUPPLEMENT TO GENERAL REQUIREMENTS
FOR
CONSTRUCTION OF PUBLIC IMPROVEMENTS**

PERIODIC BID FOR EMERGENCY CURED-IN-PLACE PIPE (CIPP) SEWER REHABILITATION

PROJECT #65-14-SP44

CITY OF HUNTSVILLE, ALABAMA

SUPPLEMENT TO GENERAL REQUIREMENTS

1. GENERAL

The attention of all bidders is called to Code of Alabama §§ 34-8-1 and 34-8-2 (1975) AND 34-8-1, 34-8-2, 34-8-4, 34-8-6, 34-8-7, 34-8-8 AND 34-8-9 (AMENDED 1996) setting forth the definition of general contractor and the licensing procedures and requirements for state licensing. No one is entitled to bid and no contract may be awarded to anyone who does not possess a valid general contractor's license and the required classification for the municipal type work to be performed. The general contractor's State of Alabama license and classification must appear on the outside of the bid envelope along with the general contractor's name and address, project name and number and date and time of bid opening. Failure to provide this will be cause to reject the bid. All prospective bidders MUST pre-qualify in order to have their bid considered for award.

Separate sealed bids for the construction of this project shall be accompanied by Bid Bond in the amount of five percent (5%) of the amount of the bid not to exceed \$10,000.00. Quantities are known as Attachment "A". No bidder may withdraw his bid within ninety (90) days after the actual date of opening. These specifications, the supplemental specifications, the plans, special provisions and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions, unless obviously incorrect, shall govern over scaled dimensions. Supplemental Specifications shall govern over the Standard Specifications for Construction of Public Improvements Contract Projects. Plans shall govern over Standard Specifications for Construction of Public Improvements Contract Projects. Special Provisions shall govern over Standard Specifications for Construction of Public Improvements Contract Projects, Supplemental Specifications, and Plans. All bid openings and any scheduled pre-bid conferences are open to the public and will be held in the Public Services Conference Room on the 1st Floor at 320 Fountain Circle, Huntsville, Alabama, unless otherwise noted.

All references to OWNER shall mean City of Huntsville, Alabama. All references to City Engineer shall mean OWNER.

2. PROPOSAL PREPARATION

(A) Proposal Form. The bidder's proposal must be submitted on the complete original proposal form furnished him by the City. Unless otherwise provided in the proposal, joint venturers may submit a proposal for a joint venture of qualified bidders on a proposal form issued to one of them, provided each venturer has taken out a proposal and provided the proposal is signed by each co-venturer.

(B) Details. On the proposal form, the bidder shall enter in numbers a unit price and the extended amount bid (unit price x quantity) in the appropriate column for each bid item, exclusive of those items for which a fixed contract unit price and extension amount are shown. On lump sum items an entry shall be shown in the amount bid column. If a bidder wishes to bid an item free, then he shall enter 0 (zero) in both the unit price column and amount bid column. After all extensions are made, the bidder shall total the extended amounts of the bid items and show his total bid amount in the appropriate place on the proposal form. All figures shall be legibly shown in ink or typed. Any interlineation, erasure or other alteration of a figure shall be initialed by the signer of the proposal. The City will check the extension of each item given in the proposal and correct all errors and discrepancies. In case of a discrepancy between a unit bid price and the extension amount, the unit price shall govern. The sum of the extension amounts will be the contract bid price. The undersigned bidder further understands that any deletions or additions designated on the outside of the bid envelope, must indicate the particular bid item relative to the deletion or addition, even if the deletion or addition references to deduct or add to the Total Base Bid.

(C) Signing. The bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, or by one or more officers of a corporation or by an agent of the Contractor legally qualified and acceptable to the City. If the proposal is made by an individual, his name and post office address must be shown; by a partnership, the name and post office address of each partnership member must be shown; as a joint venture, the name and post office address of each member or officer of the firms represented by the joint venture must be shown; by a corporation, the name of the corporation and the business address of its corporate officials must be shown. The proposal bid bond, if bid bond is tendered, shall be properly signed by the bidder and the surety.

(D) Irregular Proposals. Proposals will be considered irregular and will be rejected if they contain any omissions, alteration of form, additions not called for, incomplete bids (includes failure to enter a unit bid price on a bid item or, in the case of an alternate, the alternate being bid by the Contractor), interlineations, erasures or alterations not initialed by the person signing the proposal, or other irregularities of any kind. Bids that are not signed will be considered non-responsive and will be rejected. No proposal will be opened that does not contain the contractor's Alabama State license number. Proposals may be rejected at any time prior to the execution of the contract. Any bidder using the same or different names for submitting more than one proposal upon any project will be disqualified from further consideration on that project.

(E) Delivery of Proposals. Each proposal for each contract shall be placed, together with the proposal guaranty, in a sealed envelope on the outside of which is written in large letters "Proposals for Work" and so marked as to indicate the project name, project number, bidder name, and State license number. Proposals will be received by the OWNER or his representative unless otherwise provided until the hour and date set in the notice to Contractors for the opening thereof. No proposal will be considered which has not been received prior to the hour and date set for the opening of bids. Proposals received after that time will be returned. No proposal will be opened that does not contain the contractor's Alabama State license number.

3. QUANTITIES

The undersigned bidder understands that when unit prices are called for, the quantities shown herein are approximate only and are subject to increase or decrease, and offers to do the work whether the quantities are increased, or decreased, at the unit prices stated in the proposal. Any substantial changes requiring an increase must be approved by change order prior to work and authorized by City Council Action. The undersigned bidder also understands that when lump sum bids are called for, he will be required to furnish all equipment, labor, material and other items or cost to construct a complete facility. See Attachment "A" - Bid Quantities or revised Attachment if quantities have changed after pre-bid meeting.

4. CHANGE ORDERS

(A) Changes in the Work

Without invalidating the agreement, the owner may, at any time or from time to time, order additions, deletions or revisions in the work; these will be authorized by change orders. Upon receipt of a change order, the contractor will proceed with the work involved. All such work shall be executed under the applicable conditions of the contract documents. A change order signed by the contractor indicates his agreement.

The OWNER may authorize minor changes or alterations in the work not involving extra cost and not inconsistent with the overall intent of the contract documents. These may be accomplished by a field order.

Additional work performed by the contractor without authorization of a change order will not entitle him to an increase in the contract price or an extension of the contract time, except in the case of an emergency.

The owner will execute appropriate change orders prepared by the engineer covering changes in the work to be performed and work performed in an emergency and any other claim of the contractor for a change in the contract time or the contract price which shall be approved by the OWNER.

It is the contractor's responsibility to notify his surety of any changes affecting the general scope of the work or change in the contract price and the amount of the applicable bonds shall be adjusted accordingly. The contractor will furnish proof of such adjustment to the owner.

(B) Change of Contract Price.

The contract price may only be changed by a change order. Any claim for additional compensation shall be based on written notice delivered to the Owner and Engineer within ten (10) days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five (45) days of such occurrence unless OWNER allows an additional period of time to ascertain more accurate data. The contract price constitutes the total compensation payable to the contractor for performing the work. All duties, responsibilities and obligations assigned to or undertaken by the contractor shall be at his expense without changing the contract price. The owner may at any time without notice to the sureties, by written order designated or indicated to be a change order, make any change in the work within the general scope of the contract, including but not limited to changes: (1) in the specifications (including drawings and designs); (2) in the method or manner of performance of the work; (3) in the owner-furnished facilities, equipment, materials, services, or site; or (4) directing acceleration in the performance of the work. Any other written order or an oral order from the owner which causes any such change, shall be treated as a change order under this clause, provided that the contractor gives the owner written notice stating the date, circumstances, and source of the order and that the contractor regards the order as a change order.

(C) Change in the Contract Time.

The contract time may only be changed by a change order. Any claim for an extension in the contract time shall be based on written notice delivered to the owner and engineer within ten (10) days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five (45) days of such occurrence unless OWNER allows an additional period of time to ascertain more accurate data. All claims for adjustment in the contract time shall be determined by OWNER if owner and contractor cannot otherwise agree. Any change in the contract time resulting from any such claim shall be incorporated in a change order. The contract time will be extended in an amount equal to time lost due to delays beyond the control of contractor if he makes a claim as provided above. Such delays shall include, but not be restricted to, acts or neglect by any separate contractor employed by owner, fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

All time limits stated in the contract documents are of the essence of the agreement. The provisions shall not exclude recovery for damages (including compensation for additional professional services) for delay by either party. No claim for delay shall be allowed because of failure to furnish drawings until two weeks after demand for such drawings and not then unless such claim be reasonable.

(D) Time extension for abnormal weather conditions

In order for the owner to award a time extension for abnormal weather, the following conditions must be satisfied:

1. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.
2. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without fault or negligence of the contractor.

The following table of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) and similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's normal progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. The contractor's bid shall include the impact of the anticipated lost days in his quotation for the time he is to be on site.

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
11	8	6	4	4	5	6	4	4	3	4	8

Actual adverse weather delay days must prevent work on critical activities for 50% or more of the contractor's scheduled work day before it is considered a weather delay day.

5. MAINTAIN OFFICE

The successful contractor shall establish an office in Huntsville, Alabama, with telephone service, and shall maintain close liaison with the OWNER.

6. SUBCONTRACTORS

The prime contractor shall be responsible for all work covered under the executed contract; therefore, this responsibility cannot be shifted by subcontracting the work to others. All subcontractors shall be approved by the OWNER and shall be properly licensed as required by Alabama State Law. (Code of Alabama §§ 34-8-1 and 34-8-2 (1975) AND 34-8-1, 34-8-2, 34-8-4, 34-8-6, 34-8-7, 34-8-8 AND 34-8-9 (AMENDED 1996)) A list of all subcontractors proposed for use on the project shall be provided to the OWNER at the time that bids are received. This document will be known as ATTACHMENT "C". Lien waivers will be required from all subcontractors at the time of submittal of the final payment request. Contractor shall keep the "Subcontractor's Listing" updated throughout the project duration and submit a copy of the listing with the request for final payment. Noncompliance with this request may cause delay in payment to the Contractor.

All subcontractors must be approved in writing by Owner. If the subs listed on Attachment "C" are approved by the Owner, you will be notified in your notice to proceed. Any additional subcontractors needed during the contract period shall be approved by written letter from the Owner. If subcontractors are not approved, you will be notified prior to approval of contract by City Council. See Section 39 for Correction to City of Huntsville Standards Specifications for Construction.

7. BID BOND

Accompanying this proposal is a certified check or original signed, dated and sealed bid bond in the amount of not less than five percent (5%) of the total amount shown on the schedule of prices, not exceeding \$10,000.00 dollars, payable to the City of Huntsville, Alabama, which is to be forfeited, as liquidated damages, if, in the event that his proposal is accepted, the undersigned shall fail to execute the contract and furnish a satisfactory contract bond under the conditions and within the time specified in this proposal; otherwise, said certified check or bid bond is to be returned to the undersigned.

8. N/A

9. LIABILITY INSURANCE (SEE ALSO ATTACHED INSURANCE FOR CONTRACTORS, WHICH IS SHOWN AS SECTION 24.)

The Contractor shall provide and maintain comprehensive general public liability insurance protecting the Contractor and the City against claims arising out of or resulting from the Contractor's operation under his contract for personal injury or property damage with minimum combined single limits of \$1,000,000, whether such operations are performed by himself, or by anyone directly or indirectly employed by them. In addition, a copy of the policy may be requested upon award. Certificates of insurance acceptable to the City shall be filed with the City prior to commencement of work and said certificate shall provide that policies will not be altered or canceled until at least 30 days prior written notice has been given to the City.

The Contractor shall indemnify and hold the OWNER, its officers and employees harmless from any suits, claims, demands, damages, liabilities, costs and expenses including reasonable attorney's fees, arising out of or resulting from the performance of the work. Certificates of Insurance are required naming the City as the Certificate Holder. The Certificates should reflect the insurance coverage required herein. The Certificates are to be signed by a person authorized by the Insurer to bind coverage on its behalf and must be an original signature. Certificates signed using digital signatures will not be accepted. The Certificates must indicate coverage will not be canceled or non-renewed except after thirty (30) days prior written notice to the City at the following address: City of Huntsville, P.O. Box 308, Huntsville, Alabama 35804, Attention: Penny Kelly.

10. LICENSES AND CLASSIFICATIONS

In order to receive the award of this contract, the Contractor shall be required to possess a valid general contractor's license in accordance with Code of Alabama §§34-8-2 (1975) and (1996 amended) Code of Alabama as stated in Section 1 above. This general contractor's license shall be a State of Alabama general contractor's license and shall be maintained throughout the term of this contract. A valid City of Huntsville license shall also be maintained throughout the term of this contract.

The required classification for this project is stated in the Notice to Contractors also known as Attachment "E".

11. PERMITS

Additionally, the contractor shall be required to obtain and pay for all other federal, state or local permits, licenses, and fees which may be necessary or required in order to perform the work detailed herein. A City of Huntsville Contractor's License must be obtained from the City of Huntsville Inspection Department at the time signatures are obtained on contracts. A copy of City of Huntsville license shall be provided to the OWNER at the time the contract is executed.

12. PAYMENT

The OWNER agrees to pay the Contractor as follows: Once each month per project, the OWNER shall make partial payment to the Contractor on the basis of duly certified and approved estimates of the work performed during the preceding month by the Contractor, less five percent (5%) of the amount of such estimate, which is to be retained by the City until all of the work has been performed. Owner reserves the right to withhold payments for, but not limited to: a) defective work not remedied or defective materials not removed from site; b) claims filed, or reasonable evidence indicating imminent filing of claims against the Contractor; c) failure of the Contractor to make payments properly to subcontractors for labor, materials and equipment; d) a reasonable doubt that the Contract can be completed for the balance then unpaid; e) damage to another Contractor; f) performance of work in violation of the terms of the Contract; g) expiration of Contract time. Liquidated damages will be deducted from all invoices when the invoice estimate period end date is later than the contract completion date. All pay requests will be submitted by hard copy and on disk. The hard copy will be printed from the disk. A sample copy of the invoice is attached as Attachment "F". The OWNER will provide the disk to the contractor. Two originals and two copies of the invoices are required before payment will be made. The disk should be submitted each month, along with the originals and copies, to the Administrative Officer in the Engineering Department. No further retainage will be held after fifty percent (50%) of the contract is complete. All payments to Contractor will be made as soon as practical after the approval and finance processes have been completed. SEE SECTION 32 FOR INFORMATION ON FINAL PAYMENT.

13. N/A

14. EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, and SITE WORK

Before submitting a proposal, bidders shall examine carefully the site of the proposed work, the general and local conditions, the proposal form, standard specifications, supplemental specifications, special provisions, and the bid bond form, and it is mutually agreed that the submission of a proposal shall be prima facie evidence that the bidder has made such examination and has judged for and satisfied himself as to the conditions to be encountered in performing the work, and to the requirements of plans, standard specifications, supplemental specifications, special provisions, contract, and bonds. No adjustments or compensation will be allowed for losses caused by failure to comply with this requirement. Boring logs and other records of subsurface investigations may be available for inspection by bidders. Bidders shall request such records if they are not otherwise provided with bid documents. If available, it is understood that such information was obtained and is intended for the City of Huntsville's design and estimating purposes only. It is made available to bidders that they may have access to identical subsurface information available to the City, and is not intended as a substitute for personal investigation, interpretations and judgment of the bidders. Bidders are advised that the City disclaims responsibility for any opinions, conclusions, interpretations, or deductions that may be expressed or implied in any of the information presented or made available to bidders; it being expressly understood that the making of deductions, interpretations, and conclusions from all of the accessible factual information is the bidder's sole responsibility.

The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Shop Drawings, and the Product Data and shall give written notice to the Owner of any inconsistency, ambiguity, or error omission which the Contractor may discover with respect to these documents before proceeding with the affected work. The issuance or the express or implied approval by the Owner or the Engineer of the Contract Documents, Shop Drawings, or Product Data shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the

Contractor's compliance with this Contract. The Owner has requested the Engineer to only prepare documents for the Project, including drawings and specs for the project which are accurate, adequate, consistent, coordinated and sufficient for construction. HOWEVER, the OWNER MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING SUCH DOCUMENTS. By the execution hereof, the contractor acknowledges and represents that it has received, reviewed, and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not, rely upon any representation or warranties by the Owner concerning such documents as no such representation or warranties have been or are hereby made.

15. INCLUSIONS TO CONTRACT

The parties further agree that the advertisement for bids, instructions to bidders, contractor's proposal, plans and specifications, general requirements, supplement to general requirements and general terms and conditions, together with any addenda thereto, made prior to submission of the contractor's proposal and all modifications agreed to by the parties and issued after the execution of this contract are a part of this contract as if fully set out herein.

16. COMMENCEMENT OF WORK

It is further understood and agreed that the Contractor shall commence work to be performed under this contract within fifteen (15) days from the date of this contract, unless otherwise instructed in writing by the OWNER. All work shall be carried on continuously to completion.

17. CONTRACT TIME

All work is to be completed within the allotted time of the original contract, which is stated in the bid proposal documents, unless a valid change order has been issued which alters the contract time period.

18. LIQUIDATED DAMAGES

It is further understood and agreed by and between the parties to this contract, that in the event the work to be performed under this contract is not completed at the expiration of the contract time, then, and in that event, the Contractor shall pay to the City the amounts per calendar day by the schedule shown in the schedule in the City of Huntsville Standard Specifications, Section 80.11 – "Schedule of Liquidated Damages" for each day thereafter until such work is completed. The City will deduct said sum or sums from any money due the Contractor under this contract for any and all invoices submitted after the contract due date. (See Section 12.). Attachment "F" – Sample of Request for Payment with Liquidated Damages shall become a part of the contract documents. Liquidated damages will be deducted from all invoices when the invoice estimate period end date is later than the contract completion date.

Section 80.11 – "Schedule of Liquidated Damages" has been amended as follows effective 2/1/11 and revised in COH specifications 3/7/11:

Original Contract Amount		Liquidated Damages Daily Charge	
More Than	To and Including	Calendar Day or Fixed Date	Work Day
\$ 0	\$ 100,000	\$ 200	\$ 400
\$ 100,000	\$ 500,000	\$ 550	\$ 1,100
\$ 500,000	\$ 1,000,000	\$ 900	\$ 1,800
\$ 1,000,000	\$ 2,000,000	\$ 1,350	\$ 2,700
\$ 2,000,000	\$ 1,550	\$ 3,100

When the contract time is on the calendar day or date basis, the schedule for calendar days shall be used. When the contract time is on a work day basis, the schedule for work days shall be used.

Amounts in accordance with ALDOT and COH specifications and is based on contract amount before Change Orders.

19. STORAGE OF MATERIALS

The Contractor shall not permit the storage of materials on or use of any property outside the right-of-way easement or property identified as the project site.

20. TRAFFIC FLOW

The Contractor shall be responsible for the uninterrupted, orderly and safe flow of traffic around, on, over or across the project site.

21. TERMINATION FOR CONVENIENCE

A. The City may for any reason whatever terminate performance under this Contract by the Contractor for convenience. The City shall give written notice of such termination to the Contractor specifying when the termination becomes effective.

B. The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of their termination of subcontracts and orders. The City may direct the Contractor to assign the contractor's right, title and interest under terminated orders or subcontracts to the City or its designee.

C. The Contractor shall transfer title and deliver to the Owner such completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

D. (1) The Contractor shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Contractor fails to file a termination claim within six (6) months from the effective date of termination, the owner shall pay the Contractor, an amount derived in accordance with subparagraph (3) below.

(2) The City and the contractor may agree to the compensation, if any, due to the Contractor hereunder.

(3) Absent agreement to the amount due to the Contractor, the City shall pay the Contractor the following amounts:

(a) Contract prices for labor, materials, equipment and other services accepted under this Contract.

(b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided, however, that if it appears that the Contractor would not have profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any. Costs incurred in performing the terminated portion of the work must have been incurred prior to the effective date of the termination.

(c) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Paragraph B of this clause. These costs shall not include amounts paid in accordance with other provisions hereof.

The Total Sum to be paid the Contractor under this clause shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

The Owner specifically reserves the right to convert a termination for convenience into a termination for cause within one (1) year after the effective date of the termination for convenience, in the event that the Owner becomes aware of circumstances or conditions with regards to the Work that would have warranted the Owner terminating for default, had those circumstances or conditions been properly known by the Owner, at the time of the termination for convenience. The Owner may, upon written notice to the Contractor of its intention to convert the termination for convenience to a termination for cause, initiate the termination for cause procedures at that time, as set forth in the Performance Bond, and the termination for convenience shall then be converted to a termination for cause.

22. TERMINATION FOR CAUSE

A. If the Contractor persistently or repeatedly refuses or fails to prosecute the work in a timely manner, supply enough properly skilled workers, supervisory personnel or proper equipment or material, or if it fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a material provision of this Contract, then the Owner may, by written notice to the Contractor, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the site and of all

materials, equipment, tools, construction equipment, and machinery thereon owned by the Contractor and may finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled or receive any further payment until the Work is finished.

- B. If the unpaid balance of the Contract Price exceeds the cost of finishing the work, including compensation for the additional professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City. This obligation for payment shall survive the termination of the Contract.
- C. In the event the employment of the Contractor is terminated by the City for cause pursuant to Paragraph A and it is subsequently determined by a court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience and the provisions of the Termination for Convenience clause shall apply.

23. UNBALANCED BIDS

The City may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items. A bid is materially unbalanced when it is based on prices which are significantly overstated or understated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the City even though it may be the low evaluated bid.

24. ADDITIONAL INSURANCE REQUIREMENTS

The Contractor shall carry insurance of the following kinds and amounts in addition to any other forms of insurance or bonds required under the terms of the contract specifications. The Contractor shall procure and maintain for the duration of the job until final acceptance by the Owner, or as later indicated, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

A. MINIMUM SCOPE OF INSURANCE

1. General Liability

Insurance will be written on an occurrence basis. Claims-made coverage will be accepted only on an exception basis after the Owner's approval. General Liability Coverage and Owners Contractors Protective Insurance should be written by this same insurance company.

Commercial General Liability

Products and Completed Operations
Contractual
Personal Injury
Explosion, Collapse and Underground
Broad Form Property Damage

2. Professional Liability

N/A

3. Automobile Liability

Business Automobile Liability providing coverage for all owned, hired and non-owned autos. Coverage for loading and unloading shall be provided under either automobile liability or general liability policy forms.

4. Worker's Compensation Insurance

Statutory protection against bodily injury, sickness or disease or death sustained by employee in the scope of employment. Protection shall be provided by a commercial insurance company or a recognized self-insurance fund authorized before the State of Alabama Industrial Board of Relations.

5. Employers Liability Insurance

Covering common law claims of injured employees made in lieu of or in addition to a worker's compensation claim.

B. MINIMUM LIMITS OF INSURANCE

1. General Liability

Commercial General Liability on an occurrence form for bodily injury and property damage:

\$2,000,000	General Aggregate Limit
\$2,000,000	Products - Completed Operations Aggregate
\$1,000,000	Personal and Advertising Injury
\$1,000,000	Each Occurrence

2. Professional Liability

N/A

3. Automobile Liability

\$1,000,000 Combined Single Limit per accident for bodily injury and property damage.

4. Worker's Compensation

As required by the State of Alabama Statute.

5. Employers Liability

\$100,000	Bodily Injury
\$500,000	Policy Limit by Disease

C. OTHER INSURANCE PROVISIONS

The Owner is hereby authorized to adjust the requirements set forth in this document in the event it is determined that such adjustment is in the Owner's best interest. If the insurance requirements are not adjusted by the Owner prior to the Owner's release of specifications with regard to the project in questions, then the minimum limits shall apply.

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverages Only:

a. The Owner, its officers, employees, agents and specified volunteers are to be covered as Additional Insureds, as their interest may appear, as respects: liability arising out of activities performed by or on behalf of the contractor, architect, engineer, land surveyor or consulting firm for products used by and completed operations of the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the Owner, its officers, employees, agents or specified volunteers.

b. The Contractor's insurance coverage shall be primary insurance as respects the Owner, its officers, employees, agents, and specified volunteers, as their interest may appear. Any insurance or self-insurance maintained by the Owner, its officers, officials, employees, agents or specified volunteers shall be excess of the Contractor's insurance and shall not contribute to it.

c. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. All Coverages

a. The Contractor is responsible to pay all deductibles. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Owner. Cancellation of coverage for non-payment of premium will require ten (10) day's written notice to the Owner.

b. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Owner, its officers, employees, agents or specified volunteers.

D. ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with an A. M. Best's rating of no less than B + V.

E. VERIFICATION OF COVERAGE

The Owner shall be indicated as a Certificate Holder and the Contractor shall furnish the Owner with Certificates of Insurance reflecting the coverage required by this document. The A.M. Best Rating and deductibles, if applicable, shall be indicated on the Certificate of Insurance for each insurance policy. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates are to be received and approved by the Owner before work commences. The Owner reserves the right to require complete, certified copies of all required insurance policies at any time.

F. SUBCONTRACTOR WORKING FOR GENERAL CONTRACTOR, OR ARCHITECT, ENGINEERS, LAND SURVEYORS OR CONSULTING FIRMS WORKING FOR THE ENGINEER OF RECORD

The Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and/or endorsements for each subcontractor. The Engineer of Record shall include all architects, engineers, land surveyors or consulting firms as insured under its policies other than professional liability, or shall furnish separate certificates and/or endorsements for each architect, engineer, land surveyor or consulting firm. Subcontractors working for the contractor or architects, engineers, land surveyors, or consulting firms working for the Engineer of Record shall be required to carry insurance.

G. HOLD HARMLESS AGREEMENT

1. Other Than Professional Liability Exposures

The Contractor, architect, engineer, land surveyor or consulting firm, to the fullest extent permitted by law, shall indemnify and hold harmless the City of Huntsville, its elected and appointed officials, employees, agents and specified volunteers against all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (1) is attributable to personal injury, including bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting therefrom and (2) is caused by any negligent act or omission of the contractor, architect, engineer, land surveyor or consulting firm, or any of their subcontractors, subconsultants, or anyone directly or indirectly employed by any of them or anyone for whose acts they are legally liable. Such obligation should not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph.

2. The architect, engineer, land surveyor or consulting firm agrees that as respects to negligent acts, errors, or omissions in the performance of professional services, to indemnify and hold harmless the City of Huntsville, its officers, agents, employees, and specified volunteers from and against any and all claims, demands, losses and expenses including, but not limited to attorney's fees, liability, or consequential damages of any kind or nature resulting from any such negligent acts, errors, or omissions of the architect, engineer, land surveyor or consulting firm or any of their subconsultants, or anyone directly or indirectly employed by any of them or anyone for whose acts they are legally liable.

25. DOMESTIC PREFERENCES

In the performance of this contract, the contractor shall comply with Ala Code (1975) §§ 39-3-1 through 39-3-5 in supplying steel, materials, supplies, other products, and labor. Failure to comply with these requirements shall subject the contractor to the penalties set forth in the sections of the Alabama Code set forth above.

26. TIME IS OF THE ESSENCE

Time is of the essence in the performance of this contract.

27. NO DAMAGES FOR DELAYS

In the event that the Contractor is delayed in the performance of the work for the reasons set forth in § 80.09 of the City of Huntsville's Standard Specifications for the Construction of Public Improvements, Contract Projects, 1991, then the Contractor's recovery for such delay shall be limited to the extensions of time in contract performance in accordance with the provisions of § 80.09 and in § 4(c) "Changes in Contract Time" as set forth in the Request for Bids.

In such circumstances, time extensions are the sole remedy provided to the Contractor. The Contractor shall make no claim for extra compensation due to delays of the project beyond his control. Such delays may include those caused by an act of neglect on the part of the owner or the engineer, or by an employee of either, or by any separate contractor employed by the Owner, or by any changes ordered in the work, or by labor disputes, fire, unusual delays in transportation, adverse weather condition not reasonably anticipatable, unavoidable casualties, or by delay specifically authorized by the owner in writing pending the resolution of any disputes, or by any other cause which the Owner determines may justify delay.

28. CONTRACTOR RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO CONSTRUCTION INITIATION

The Contractor's attention is specifically directed to §50.07 -Cooperation with Utilities and Non-Highway Public Facilities of the City of Huntsville's Standard Specifications for the Construction of Public Improvements, Contract Projects, 1991. In addition to the responsibilities placed on the Contractor by that clause, the Contractor shall be responsible for having existing utilities located prior to excavations. The existence and location of any underground utility pipes or structures shown on these drawings have been obtained by a search of the available records. The City assumes no responsibility as to completeness or accuracy of the depicted location on these drawings. The Contractor shall be responsible for taking precautionary measures to protect the utility lines shown and all other lines not of record or not shown on these drawings by verification of their location in the field prior to the initiation of the work.

29. CORRECTION TO CITY OF HUNTSVILLE'S STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF PUBLIC IMPROVEMENTS, CONTRACT PROJECTS, 1991

§80.09 (b) 2.of the City of Huntsville's Standard Specifications for the Construction of Public Improvements, Contract Projects, 1991 refers to the definition of recovery time as being set forth in Section 10.01. Inasmuch as this definition was omitted from §10.01, the following definition shall be incorporated:

Recovery Time. Recovery time is defined as the time required, after the controlling item or items of work have been substantially damaged as a result of conditions and causes beyond the control of the Contractor and not due to his negligence of fault, to restore the work to the condition existing prior to such damage so that normal operations can be resumed on the contract pay items. Recovery time shall be the number of days required by the Contractor, working with normal forces, to restore the work as described above.

30. WARRANTIES

Contractor shall provide a minimum of one year warranty of all materials and services from date of final completion. Additionally, all manufacturer's warranties on materials used in providing the services shall be provided to the owner with the final payment request. Separate warranty bonds may be required on specialty items as determined by the Owner and will be shown as a separate line item in the quantities prior to bidding.

31. COORDINATION WITH OTHER CONTRACTORS

It shall be the responsibility of the contractor to coordinate with other separate contractors who may be working on the site or an adjacent site with regards to access to the site, storage of materials and working on a non-interference basis.

32. W-9 TAXPAYER FORM

All vendors/contractors are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded, unless vendor/contractor is already registered and doing business with the City. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be obtained at the following website: www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf

33. FINAL PAYMENT

Final payment to construction contractor will be made after contractor provides the following: advertising of completion for four (4) consecutive weeks, lien waivers have been provided from all subcontractors, Record Drawings (As-Builts) have been submitted to the OWNER by construction contractor, all property pins have been reset by a licensed land surveyor hired by the construction contractor to meet "Standards of Practice for Surveying in the State of Alabama" as required by the Alabama Board of Registration for Engineering and Land Surveyors, and all construction signs have been removed. This final payment will be retainage only. All work shall be complete prior to advertisement of completion. Advertisement of completion shall be in a Huntsville local newspaper. The final payment request of retainage only shall be submitted along with two (2) original, certified copies (with raised notary seal) of the advertisement of completion, warranties, lien waivers and Record Drawings. The advertisement of completion must read as follows:

LEGAL NOTICE (Header)

_____(company name)_____ hereby gives Legal Notice of Completion of Contract with _____(project name)_____, _____(project no.(s))_____ located in the City of Huntsville, Alabama. All claims should be filed at _____(company address)_____ during this period of advertisement, i.e. June 17, 24, July 1, 8, 2011 (example of dates).

34. PROJECT COMPLETION DATE

The project completion date will be a date mutually agreed upon by the OWNER and Contractor. This date will be after all items have been completed. Therefore, all work will be complete before any advertisement of completion is made. The completion date will always be before the first advertisement date. This final project completion date will be the date used to determine the one year warranty for all work and materials, unless a separate warranty bond has been called for as a line item prior to bidding.

35. RECORD DRAWINGS

POLICY FOR RECORD DRAWINGS

The purpose of this policy is to document procedures for the preparation and delivery of Record Drawings. Record Drawings shall include all changes in the plans, including those issued as Change Orders, Plan Clarification, Addenda, Notice to Bidders, responses to Requests for Information, Jobsite Memos, and any additional details needed for the construction of the project, but not shown on the plans. After completion of all construction and before final acceptance is made, the Contractor shall submit one set of full size record drawings with dimensioned changes shown in red pencil, and one digital copy of record drawings using the criteria listed below.

City Construction Projects:

The Contractor shall be responsible for field surveying upon substantial completion of construction (to be performed by a registered land surveyor in Alabama). Contractor is responsible for providing digital record drawings showing all info specified below, as applicable. Record drawings shall be maintained by the Contractor at the work site and shall be updated based on job progress to reflect all changes. Record drawings shall be made available for review on a monthly basis at the job site. A monthly review of record drawings will be part of the monthly monetary progress review. Progress payments may be withheld if the Record Drawings are not kept up-to-date. A late review could result in a delay of payment.

Format Requirements for all record drawing submittals:

All drawings shall be prepared in Micro Station .DGN format, unless otherwise approved by the City Engineer. Transmittal letters shall consist of a list of files being submitted, a description of the data in each file, and a level/layer schematic of each design file. DGN design files should have working units as follows: master units in feet, no sub-units, and 1,000 positional units. All data submitted shall use NAD 1983 Alabama East Zone coordinates as described in The Code of Alabama (1975), section 35-2-1 and NGVD 1929. Digital files shall be submitted on 4-3/4" CD ROM, 100 MB zip drive, 3 and 1/2 inch floppy disk, or to the City of Huntsville F.T. P. Site. Contractor is required to certify that record drawings are in the correct format upon submittal. Record Drawings shall be prepared and provided to the OWNER in the manner required and described below in Level Symbolology.

Record Drawing Criteria, unless otherwise noted by City Engineer:

- 1. Roadways:**
 - a. Any changes during construction of roadway/intersections that differ from plan drawings.
- 2. Sanitary Sewers:**
 - a. Gravity Line
 - i. Horizontal Location of Manholes – Northing and easting Coordinates
 - ii. Vertical Location of Manholes – Lid elevation and Invert elevation.
 - iii. Changes in location of clean outs, or end of service lateral.
 - iv. Changes in length, slope, size, or material of lines.
 - b. Force Mains
 - i. Horizontal Location of Air Relief/Vacuum/Isolation Valves – Northing and easting Coordinates
 - ii. Horizontal and Vertical Location of Fittings/Bends
 - iii. Changes in length, size, depth or material of lines
 - iv. Changes in restraint types
 - c. Pump Stations
 - i. Changes in Structural Requirements – (length, width, thickness, cover, laps, bar size, spacing, materials, material strengths, etc.)
 - ii. Changes in Site Development and/or Landscaping
 - iii. Changes in Equipment
- 3. Storm Drainage:**
 - a. Structures (boxes, inlets, end treatments, etc.):
 - i. Horizontal locations of Features – Northing and easting coordinates
 - ii. Vertical location of Features – Tops and Inverts
 - iii. Changes in type, size, or material of feature.
 - b. Pipes / Culverts:
 - i. Document length
 - ii. Document slope

- iii. Document size
- iv. Document invert elevation
- v. Changes in material of structure
- c. Flumes, Ditches, and/or Swales/Berms: (the following are minimum requirements).
 - i. Horizontal location (to verify location within described easements)

For easement widths less than 15- feet	At 100-foot intervals along the centerline of feature.
For easement widths 15-feet or Greater	At 200-foot intervals along the centerline of feature.

- ii. Vertical location (to verify positive drainage)

For slopes less than 0.5%	At 50-foot intervals along the centerline of feature.
For slopes 0.5% or greater	At 100-foot intervals along the centerline of feature.

- iii. Changes in width or material of feature.
- iv. Changes in location and type of geotechnical fabric used.
- v. Changes in overall grading of site topography.
- d. Detention / Retention Facility:
 - i. Changes in size, location, or material of facility.
 - ii. Changes in location and type of geotechnical fabric used.
 - iii. Where applicable, copy of maintenance agreement.

Checklist for review of record drawings:

- a. Changes in sidewalk location or size.
- b. Changes in shoulder widths.
- c. Changes in grades at intersections. (also to include changes in island location)
- d. Changes in location of driveway aprons.
- e. Changes in pavement section, to be supported by adequate documentation.
- f. Changes in gutter flow line elevation. (could be substituted in 3b) versus edge of pavement).
- g. Geotechnical fabric locations, to include vertical elevation.
- h. Changes in Traffic Engineering related items such as signals, signage and markings, etc.

Any other changes that may have occurred during construction.

LEVEL SYMBOLOGY

DESIGN LEVEL	CONTENTS	LINE CODE	COLOR	WEIGHT	TEXT SIZE	FONT	CELL NAME
1	State Plane Coordinate Grid	0	0	0	20	0	
2	Benchmarks	0	0	0			
3	Street Text	0	3	0	20	0	
4	Street R/W	7	0	0			
5	Street Centerline	7	0	0			
6	Street Pavement	0	3	0			
6	Proposed Street Pavement	3	16	0			
7	Parking Lots	1	3	1			
8	Secondary Roads	2	3	0			
8	Trails	3	3	0			
9	Secondary Roads/Trails Text	0	3	0	20	0	
10	Sidewalks	5	3	0			
11	Bridges/Culverts	0	0	0			
12	Hydrology - Major	6	1	0			
12	Hydrology - Minor, Ditches	7	1	0			
13	Hydrology - Text	0	1	0	25	23	
14	Tailings & Quarries, Athletic Fields/Text, misc. areas	0	1	0			

15	City Limits/County Line	1	0	3			
16	City /limit text	0	0	1	30	0	
17	Railroad Tracks (Patterned)	0	2	0			RR
18	Railroad Text	0	2	0	25	0	
19	Railroad R/W	2	2	0			
20	Utility Poles (Cell)	0	5	0			P POLE
21	Utility Easements	3	5	0			
22	Utility Text	0	5	1			
23	Geographic Names	0	3	1			
24	Building Structures	0	0	0			
	Pools and Text	0	1	0	10	1	
24	Future Site of Structures	2	0	0			STRUCT
	Existing Structures (exact location and shape unknown)	2	0	0			STRCEX
25	Property Lines	6	6	1			
26	Cadastral Polygons	6	6	0			
27	Ownership Text	0	6	1			
28	Cemeteries/Text	4	6	0	10	1	
29	Lot Numbers				25	0	
30	Block Numbers				30	0	
31	Addition Names	0	0	0	35	0	
32	Open						
33	Lot Ticks						
34	Lot Lines/Property Lines	6	6	0			
35	Trees/Hedge Rows	0	6	0	AS=1		TREES
36	GPS Monuments	0	5	0	15	0	GPS
37	2' Topo Contour						
38	5' Topo Contour	0	7	0			
39	25' Major Topo Contour	0	7	0			
40	X Spot Elevation	0	7	0			
41	FEMA Monuments/Labels	0	3/0	0	18	1	GPSPNT
42	Quarter Sections						
43	Section Lines	0	5	0			
44	Features	0	2	0			
44	Cell Towers	0	12	0	AS=1		CELTWR
45	Fences (Pattern)	0	8	0	AS=1		FENCE
46	Format/Legend	0	0	0			Limleg Madleg
47	Mass Points	0	7	2			
48	Break Lines	0	7	2			
49	Open						
50	Signs						
51	Open						
52	Open						
53	Open						
54	Open						
55	Open						
56	Property Address	0	1	0			
57	Text Tag for Buildings	0	1	0	10-20	1	
58	Open						
59	Open						
60	Open						
61	Open						
62	Monuments for Setup (point cell)						
63	Open						

36. LIEN WAIVERS

Lien waivers will be required from all subcontractors working for the contractor. These lien waivers shall be included with your final payment package. The contractor is responsible for obtaining signatures from his subcontractors. If no subcontractors are used, contractor must provide a statement indicating such.

37. LOWEST RESPONSIBLE BIDDER

For the purpose of determining the lowest responsible bidder, the OWNER shall consider the base bid amount together with any options set forth in the Request for Bids. In the event that the City does not have sufficient funds to award both the base bid and all options, then the City reserves the right to determine the lowest responsible bidder on the base bid only or the base bid and the number of options affordable considering the funds available to the City for the procurement. This method for determining the low bidder is for the purpose of allowing the City to procure the most advantageous bid for the OWNER. City of Huntsville reserves the right to award any and/or all options at any time during the life of the contract.

38. NON-RESIDENT BIDDERS

"In awarding the Contract, preference will be given to Alabama resident contractors and a nonresident bidder domiciled in a state having laws granting preference to local contractors shall be awarded the Contract only on the same basis as the nonresident bidder's state awards contracts to Alabama contractors bidding under similar circumstances."

39. CORRECTION TO SECTION 80.08(C) of The City of Huntsville "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS" is revised as shown:

(C) DAYS WORK NOT PERMITTED: The Contractor shall not permit work on any pay item to be done on Sundays and the following holidays: New Year's Day, Martin Luther King's Birthday as nationally observed, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and Christmas Day, except with permission of the Director.

40. CORRECTION TO SECTION 80 – PROSECUTION AND PROGRESS 80.01 Subletting and Contract. (a) LIMITATIONS

The Contractor shall not sublet the contract or any portion thereof, or of his right, title, or interest therein, without written consent of the DIRECTOR. If such consent is given, the Contractor will be permitted to sublet a portion of the work, but shall perform with his own organization, work amounting to not less than 30 percent of the total contract cost. Any items designated in the contract as "specialty items" may be performed by sub-contract and the cost of such specialty items performed by sub-contract may be deducted from the total cost before computing the amount of work required to be performed by the contractor with his own organization. No sub-contracts, or transfer of contract, shall relieve the Contractor of his liability under the contract and bonds. The Department reserves the right to disapprove a request for permission to sublet when the proposed Subcontractor has been disqualified from bidding for those reasons listed in Sub-article 20.02(b) and Article 30.03.

41. CORRECTION TO SECTION 80 – PROSECUTION AND PROGRESS 80.03 Progress Schedule of Operations

A critical path schedule is required within thirty (30) days after award. The critical path schedule must be submitted in Microsoft Projects format (electronic format and hard copy), with the critical path highlighted. The critical path schedule shall show information on the task or tasks that must be finished on schedule for the project to finish on schedule. Task dependencies, constraints, and relationships shall be shown on the schedule. If the progress report (critical path) is not received, YOUR first pay estimate will NOT BE PROCESSED UNTIL IT IS RECEIVED. See section 80.03 and 80.04 for additional requirements.

42. CORRECTION TO SECTION 80 – PROSECUTION AND PROGRESS 80.09 (b) Contracts on a Calendar Day or Calendar Date Basis

§80.09 (b) first paragraph reads: "When the notice to proceed is delayed more than 10 calendar days after execution of the contract, the date of completion will be extended . . ." Shall be amended to read "When the notice to proceed is delayed more than 15 calendar days after execution of the contract, the date of completion will be extended . . ."

Section 80.09(B) is revised to remove the last sentence of the first paragraph: ("Also where the total cost of the completed work exceeds the total cost shown on the proposal, an extension in calendar days will be granted the Contractor, as provided in Section 80.09(a)1.") It is replaced by: "Where the scope of work is increased, an extension of time commensurate with the scope of the change may be granted by the OWNER, when in his judgment, the facts justify an extension. The contractor shall provide justification substantiated to the satisfaction of the OWNER with any requests for time extensions. Justification shall include, but not be limited to, a revised schedule showing the impact to critical path tasks. "

43. CORRECTION TO SECTION 105 – EXCAVATION AND EMBANKMENT 105.04 (a) Method of Measurement

Section 105.04 will remain as stated when estimated borrow material is less than 2500 C.Y.

When estimated borrow material is more than 2500 C.Y., Section 105.04 is revised to remove the last paragraph: "Borrow material will be measured at the point of delivery, inside the delivery truck less 30 percent for shrinkage."

44. CORRECTION TO SECTION 847 – PIPE CULVERT JOINT SEALERS

Section 847 is deleted and replaced with Section 846 – Pipe Culvert Joint Sealers, ALDOT Specifications for Highway Construction, Current Edition.

45. NPDES CONSTRUCTION REQUIREMENTS

For areas of this project meeting the Alabama Department Of Environmental Management (ADEM) definition of a "Construction Site", the Contractor shall prepare and apply for, pay the necessary fees, post the required registration at the jobsite prior to commencing work, and maintain the worksite and records in accordance with the ADEM requirements for National Pollutant Discharge Elimination System (NPDES) registration. Off site borrow pits utilized in the construction of this project are included in the requirement. NPDES Construction Site is construction that disturbs 1 acre or greater or will disturb less than 1 acre but is part of a larger common plan of development or sale whose total land disturbing activities total 1 acre or greater. An NPDES construction site also includes construction sites, irrespective of size, whose stormwater discharges have a reasonable potential to be a significant contributor of pollutants to a water of the State, or whose stormwater discharges have a reasonable potential to cause or contribute to a violation of an applicable Alabama water quality standard as determined by the Department. The Contractor is referred to the "Alabama Department Of Environmental Management Field Operations Division – Water Quality Program - Division 335 – 6" for complete definitions and requirements. The Contractor is also referred to Item 11 of these General Requirements, sections 50.15, 50.16, and 70.02 of the City of Huntsville Standard Specifications For Construction Of Public Improvements, Contract Projects (Specifications)

Contractor violations of the permit by rule which results in enforcement actions from ADEM including fines and/or work stoppage shall be the responsibility of the Contractor. Fines assessed to the Contractor or the OWNER because of Contractor action shall be paid by the Contractor. No extension of contract time shall be considered as a result of enforcement. Enforcement history will also be considered by the OWNER in its decision to issue future proposals or award future contracts in accordance with disqualification provisions of Section 20.02(b) of the Specifications.

46. DELETION OF SECTION 50.01 – Authority of the Engineer of Record

This section is deleted.

47. SHOP DRAWINGS

The approval of shop drawings by the Engineer will cover only the features of the design and in no case shall this approval be considered to cover error or omissions in shop details or a check of any dimensions. The Contractor shall be responsible for the accuracy of the shop drawings, the fabrication of materials and the fit of all connections; and he shall bear the cost of all extra work in erection caused by errors in shop drawings or in fabrication, inaccurate workmanship, misfits of connections or for any changes in fabrication necessary. No work shall be done on the material before the shop drawings have been approved. Any material that the Contractor orders prior to the approval shall be at the Contractor's risk.

Substitutions or changes whether indicated or implied on shop drawings will not be considered as changes regardless of the Engineer's approval of shop drawings unless the change has been previously submitted and approved as a change order per the requirements for changes in the contract.

After a shop drawing has been approved, no changes shall be made unless directed in writing to the Owner and acceptance by the Owner of said changes. Any acceptance of change by the Owner does not constitute a change to the contract unless that change has been approved and directed in writing per change order. Compensation for preparing and furnishing all shop and working drawings shall be included in the contract unit prices for the various pay items of work.

48. E-VERIFY – NOTICE

The Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975) § 31-13-1 through 31-13-30 (also known as and hereinafter referred to as "the Alabama Immigration Act") as amended by Act No. 2012-491 on May 16, 2012 is applicable to all competitively bid contracts with the City of Huntsville. As a condition for the award of a contract and as a term and condition of the contract with the City of Huntsville, in accordance with § 31-13-9 (a) of the Alabama Immigration Act, as amended, any business entity or employer that employs one or more employees shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama.

During the performance of the contract, such business entity or employer shall participate in the E-Verify program and shall verify every employee that is required to be verified according to the applicable federal rules and regulations. The business entity or employer shall assure that these requirements are included in each subcontract in accordance with §31-13-9(c).

Failure to comply with these requirements may result in breach of contract, termination of the contract or subcontract, and possibly suspension or revocation of business licenses and permits in accordance with §31-13-9 (e) (1) & (2).

Code of Alabama (1975) § 31-13-9 (k) requires that the following clause be included in all City of Huntsville contracts that have been competitively bid and is hereby made a part of this contract:

"By signing this contract the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom."

Contractor's E-Verify Memorandum of Understanding shall be a part of the contract bid documents and shall be submitted with the bid package.

49. CITY OF HUNTSVILLE'S TRAFFIC ENGINEERING DEPARTMENT CONSTRUCTION REQUIREMENTS

For areas of this project that require removal of traffic loops, striping, markings, rpm's and ceramic markers, the following shall apply:

1. **TRAFFIC SIGNAL LOOP REPAIRS** – All vehicular and bicycle detector loop replacements shall be in accordance with the Alabama Department of Transportation Standard Specifications for Highway Construction, current edition. Unless otherwise specified, traffic signal loops shall be replaced exactly as existed prior to any paving or resurfacing work. The general contractor will be responsible for documenting location of loops, location of any associated items for loop operation and assuring that loops are replaced exactly as existed prior to paving. All vehicular and bicycle loop repairs shall be replaced within fourteen (14) calendar days after paving work.
2. **TRAFFIC SIGNAL STRIPING, MARKINGS, RAISED PAVEMENT MARKERS AND CERAMIC MARKERS FOR GUIDANCE** - All traffic striping, markings, raised pavement markers and ceramic markers for guidance shall be in accordance with the Alabama Department of Transportation Standard Specifications for Highway Construction, current edition. Unless otherwise specified, traffic striping, markings, raised pavement markers and ceramic markers for guidance shall be replaced exactly as traffic striping, markings, raised pavement markers and ceramic markers for guidance existed prior to any paving or resurfacing work. The general contractor will be responsible for documenting location of all striping, markings, raised pavement markers and ceramic markers for guidance and assuring that all are replaced exactly as existed prior to paving. All traffic striping, markings, raised pavement markers and ceramic markers for guidance shall be reflectorized. All resurfaced areas shall be marked with temporary striping and markings for traffic usage by nightfall each day, 7 days a week, in accordance with State of Alabama regulations. All permanent striping, markings, raised pavement markers and ceramic markers for guidance shall be replaced within thirty (30) calendar days after paving work.

50. SURVIVABILITY OF CONTRACT PROVISIONS

Termination of this Contract by either party shall not affect the rights and obligations of the parties that accrued prior to the effective date of the termination. Terms and conditions of the contract that survive termination include, but are not necessarily limited to, provisions regarding payments, insurance, termination, warranty, governing law of the contract, liquidated damages, bonding requirements, notice procedures, waiver, and other requirements necessary and appropriate for the proper resolution of disputes, claims, and enforcement of the rights of the parties.

51. SURETY BONDS

The Contractor shall furnish separate performance and payment bonds to the Owner within fifteen (15) days after the date of acceptance of this proposal by City Council action. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by the Contractor shall be in forms suitable to the Owner, in conformance with all the requirements of the Code of Alabama (1975), §39, and shall be executed by a surety, or sureties, reasonably suitable to the Owner. All bonds must be approved by the Mayor and the Clerk-Treasurer of the City of Huntsville.

52. GOVERNING LAW

The Contract shall be governed by the laws of the State of Alabama.

53. ALABAMA IMMIGRATION ACT (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975))

Compliance with the requirements of the (Beason-Hammon Alabama Taxpayer and Citizen Protection Act, Act No. 2011-535, Code of Alabama (1975) § 31-13-1 through 31-13-30, as amended by Alabama Act 2012-241, commonly referred to as the Alabama Immigration Law, is required for City of Huntsville, Alabama contracts that are competitively bid as a condition of the contract performance. The Contractor shall submit in the bid package, with the requested information included on the form, the "City of Huntsville, Alabama Report of Ownership Form" listed in this document as Attachment "H". The bidder selected for award of the contract may be required to complete additional forms relating to citizenship or alien status of the bidder and its employees, including e-verify information, prior to award of a contract.

54. SUCCESSORS AND ASSIGNS

The Owner and Contractor bind themselves, their successors and assigns to the other party hereto and to successors and assigns of such other party in respect to covenants, agreements, and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the Owner. In no event shall a contract be assigned to an unsuccessful bidder whose bid was rejected because he or she was not a responsible or responsive bidder.

55. WRITTEN NOTICE

Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

56. RIGHTS AND REMEDIES

Duties and obligations imposed by the Contract Documents and rights and remedies available there under shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

No action or failure to act by the Owner, Engineer, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

57. ENTIRE AGREEMENT

This Contract represents the entire agreement between the Owner and the Contractor and supersedes all prior communications, negotiations, representations or agreements, either written or oral. This agreement may be amended only by written instrument signed by both Owner and Contractor.